

# Premium-Rx Archives

*Jun 18, 2001 to Nov 25, 2002*

premium-rx-digest Friday, June 22 2001 Volume 01 : Number 133

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Date: Mon, 18 Jun 2001 21:48:31 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: Cubic 3030

I have had the unfortunate experience of having a receiver which was on loan to me go "BANG" in the middle of testing. Looking into the power supply reveals that the varistor surge suppressor across the ac mains input to the main bridge rectifier has gone short circuit, which is not surprising since it is rated fairly close to the limit for UK ac mains supply voltages. When I opened up the power supply module I found a low voltage electrolytic rattling around inside, and inspection showed that this had blown itself off the p.c.b. at some earlier time. Cubic owners know how hot these units run, and from physical and nasal inspection, I would recommend that owners replace all the low voltage electrolytics with new stock rated at 105 degrees C before they have a sudden blow-out. If you have experienced just how much conductive garbage a small electrolytic can throw around a closed compartment, you don't have to be advised. Happy desoldering. John Wilson

----- John Wilson Stone Hill Kings Nympton Umberleigh Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

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Date: Mon, 18 Jun 2001 18:57:41 -0600  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: Prem-Rx: Premium Rx Control Software

Hi Everyone,

Colin Trass has a version of his control software for the RA6790/GM,Racal6830,TenTec RX330/331/340, on his website: <http://www.visualradios.com/>

Shaun

----- Shaun Merrigan smerriga@compusmart.ab.ca

---

Date: Mon, 18 Jun 2001 18:39:16 -0700  
From: matt parkinson <mparkinson1@socal.rr.com>  
Subject: Re: Prem-Rx: Premium Rx Control Software

HI folks I am looking for a good copy of a manual for a Harris RF 590. Is there anyone out there that has one for sale. Thanks Matt Parkinson.KE6UOS

Shaun Merrigan wrote:

- > Hi Everyone,
  
- > Colin Trass has a version of his control software
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- > Shaun

> -----  
> Shaun Merrigan  
> smerriga@compusmart.ab.ca  
-----

Date: Tue, 19 Jun 2001 11:02:08 -0700  
From: "Dennis Polito W6DEN" <cloudhopper@home.com>  
Subject: Prem-Rx: manual for Harris RF 530A

This is a multi-part message in MIME format.

- -----=\_NextPart\_000\_0037\_01C0F8AF.48401B60 Content-Type: text/plain; charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

I recently acquired a Harris RF 530A receiver and it is a little deaf. = Does anyone have a manual available for sale or copy? Any leads would be = greatly appreciated.

Dennis Polito

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> <STRONG  
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> <STRONG  
> Dennis= 20 Polito</STRONG  
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>

- -----=\_NextPart\_000\_0037\_01C0F8AF.48401B60--  
-----

Date: Tue, 19 Jun 2001 18:17:46 -0700  
From: matt parkinson <mparkinson1@socal.rr.com>  
Subject: Re: Prem-Rx: manual for Harris RF 530A

- -----396C4D6C2BC5B84A9FFE2041 Content-Type: text/plain; charset= us-ascii Content-  
Transfer-Encoding: 7bit

Matt Parkinson wrote:

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Matt Parkinson KE6UOS

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> Matt Parkinson wrote: <blockquote TYPE= CITE

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> < /b

>

> Matt Parkinson KE6UOS

>

- -----396C4D6C2BC5B84A9FFE2041--

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Date: Tue, 19 Jun 2001 18:32:50 -0700

From: Ben Wallace <bwallace@crash.cts.com

Subject: Prem-Rx: QST and 5 kHz Measurements

I see where QST has started testing receive dynamic range and intercept points at 5 kHz spacing !!!  
July 2001 issue.

Ben Wallace WB8HUR San Diego

-----

Date: Tue, 19 Jun 2001 21:16:40 -0600

From: Rob & Terri Sherwood <rob@sherweng.com

Subject: Prem-Rx: Need radio to test

I would like to test an Icom 756 and an Icom 756 Pro. There would be no charge for the test, and I would ship the radio back to its owner at my expense.

-----

Date: Tue, 19 Jun 2001 22:13:39 -0600

From: Rob & Terri Sherwood <rob@sherweng.com

Subject: Prem-Rx: 5 kHz dynamic range testing

I have just been informed that QST will start publishing 5 kHz dynamic range test values in addition to the 20 kHz-spacing data that Wes Hayward pioneered years ago. This is very good news, even if long overdue. As you may be aware Sherwood Engineering began publishing 2 kHz dynamic range numbers in 1977 when they had the lead article in the December 1977 issue of "ham radio magazine". As you know, with the proliferation of up-conversion radios with first IF filters having bandwidths of 10 to 20 kHz, the close-in dynamic range numbers are often 20 to 30 dB worse than the 20 kHz figures which only test the first mixer. Yet manufacturers rarely, if ever, quote the "real" numbers that are nowhere near the magic 100 dB they boast about.

The other major issue is the performance of IF DSP radios. When tested at 5 kHz, most fold up under this kind of scrutiny. Dynamic ranges between 45 and 60 dB are very typical, yet few hams are aware of this problem.

The Premium-RX reflector has had extensive e-mail discussions during the past two months on receiver testing, dealing with test equipment synthesizer phase noise, and receiver dynamic range and noise floor. I am aware of only of two HP synthesized generators quiet enough to test modern radios, the 8662A and 8663A. Of course the classic 8640 series does well from a phase noise standpoint. Adequate isolation between generators was also extensively discussed recently, as test equipment generated IMD is a serious problem when testing radios with a 20 kHz dynamic range above 90 dB . As the lab engineer for QST, it would be valuable if you could join the group and participate in the rather esoteric discussions of the difficulties of adequately testing modern radios. Many members feel that some of the classic tube radios do better in the real world of amateur radio pile ups than many modern solid-state sets. The R-390A is one prime example.

If it is correct that QST has been making 5 kHz dynamic range tests for some time, but not publishing them in the magazine, will the League take the unprecedented step of publishing this information in QST? If the truth about some of the problems of modern radios becomes more widely disseminated, maybe the few remaining manufacturers will try to make a better product. The recently reviewed VR-5000 is a prime example of incomplete knowledge. The 5 kHz third-order intercept (IP3) was a miserable -60 dBm, but that information was not printed. Pity the poor SWL or ham who bought that radio, as it is virtually useless unless the bands are dead.

73, Rob Sherwood, NC0B

-----  
Date: Wed, 20 Jun 2001 13:34:46 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: Cubic 3030

Does anyone out there have any control software for the Cubic 3030A or know where such software can be obtained? Thanks John Wilson

- ----- John Wilson Stone Hill Kings Nympton Umberleigh Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Wed, 20 Jun 2001 11:05:56 -0400  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>  
Subject: Prem-Rx: RE: 5 kHz dynamic range testing

Hi Rob, A word (or two) of explanation is in order here, I think. In 1996, the lab started performing an expanded set of testing on \*select\* radios (think contest quality rigs). This information was published in what is called an "Expanded Test Result Report", which is available either in paper form for a fee (\$7.50 for ARRL members, \$20 for non-members) or for \*free\* on our member's web page.

These reports include a concise explanation of test set-ups and procedures, as well as the extra data and some explanation of what is sought by the tests. Length runs about 30 pages, typically.

While the technically-oriented types at HQ would generally like to see more technical data in QST reviews, it has been pointed out that much of this is above the average ham's level of comprehension (which I can pretty well verify from ham's I've talked to; but I have plans to work on that...). That's why (among other reasons) we do the expanded reports.

The expanded testing represents a significant amount of manpower investment on the part of someone who already has a very full "plate" (yours truly, although the other Lab staff is pretty much in the same boat). Because of this, we could not possibly do such testing on all radios.

Of course, simply adding 5 kHz data is another matter, as this is but a modest time investment. While I could have done this with the `5000, short-wave receivers generally get minimal testing for QST, so precedence was against it. Now, I know you're saying "why does receiver-only testing take a back

seat?". The fact is that in an ideal world it shouldn't, but the market has repeatedly shown that hams are not often interested in separate receivers and not many SWLs read QST (that's just an editorial comment on my part - I don't want to get into a discussion about this).

Anyway, here's my take on the state of commercial equipment - you are absolutely on the money with regard to poor close-in performance and it is my opinion that receiver performance in general is not as good as it should be for the money we pay. I think a large part of the problem is a lack of education on the part of users, but another part of the problem is the distance between marketing and engineering in many companies (of course, that's always been a problem in any electronics industry from what I have seen). Because of this, features get all the spotlight and performance is relegated to a distance behind. I hope to be able to influence at least a bit of change in that regard, but it will definitely take time.

73, Michael Tracy, KC1SX, ARRL Lab

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Date: Wed, 20 Jun 2001 11:26:13 -0400  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>  
Subject: RE: Prem-Rx: 5 kHz dynamic range testing

Frank, While I probably shouldn't touch this issue with a proverbial 40-foot pole (because I am in no way an expert on it), I will anyway. From what I can see, there are numerous advanced degree experts on both sides of the conjugate matching issue. That is mainly what was responsible for the Rich Measures / QST Tech Correspondence / Amplifier debacle. In a somewhat more recent column in QEX, Lab Engineer Zack Lau, W1VT went through the math to prove the validity of conjugate matching, then presented a number of cogent arguments as to why it is not the way real designs are done (July 2000 QEX for anyone interested). Similar things could be said with regard to the necessity (or lack thereof) for Rich's parasitic suppressors. CAVEAT: I am (and have always been) a dedicated QRPer, so I do not have any interest in amplifiers beyond that which I need to know to test them. :-)

Of course, my words will be considered biased because I work here, but I can tell you that we absolutely do not always agree with (or follow) what QST advertisers have to say. We have in fact lost more than one advertiser due to things said in Product Review, so the "hand that feeds it" argument doesn't wash from what I can tell.

In fact, I am the one responsible for reviewing QST ads every month for technical claims and if something appears which is unlikely or unverifiable, the advertising department is instructed to remove the claim from the ad. Note that as with all human endeavors, I have made a \*couple\* of mistakes in this regard in the past three years that I have been doing this.

73, Michael Tracy, KC1SX, ARRL Lab

---

Date: Wed, 20 Jun 2001 09:40:30 -0700  
From: "Jerry Gardner" <jerr@nortelnetworks.com>  
Subject: RE: Prem-Rx: RE: 5 kHz dynamic range testing

This message is in MIME format. Since your mail reader does not understand this format, some or all of this message may not be legible.

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> I think a large part of the problem is a lack of education on the part of users

This mirrors my experience as well. People just don't know what poor performance is without a good-performing piece of equipment to compare it to. That's why we see all the glowing user-reviews of equipment known to be deficient in the performance area.

I see this all the time in my other hobbies (photography and video) as well. I always use a professional lab to print my color negatives and friends are always amazed when they compare my results with what

they get from the local 1-hour lab. They have become used to the mediocre prints made by the labs they use and consider this perfectly acceptable--until they see what a real lab can do.

-- Jerry Gardner, W6UV

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> Jerry Gardner, W6UV

> </P

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Date: Wed, 20 Jun 2001 11:58:19 -0600

From: Rob & Terri Sherwood <rob@sherweng.com

Subject: Re: Prem-Rx: 5 kHz dynamic range testing

Thanks for the kind words. I am not familiar with QEX, so please fill me in.

I have purchased a kit from Rich Measures to modify one of my Kenwood 922 linears. Unfortunately the kit is still in the box. My understanding of that fiasco is as follows, so please correct me if I am wrong.

Mr. Measures found that a lot of tubes were failing from internal shorts caused by parasitic oscillations. I had this happen to me with a 3CX1500A7 to the tune of a lot of money. His methods of parasitic suppression were different, and the "old guard" linear manufacturers were not happy with him advertising that their products were defective. I think he was kicked out of QST. Is that correct?

The R. L. Drake Company was never very happy with my company, though it extended the life of their C-Line by 20 years or more. Of course that matters little now that they have abandoned the amateur market. So I can imagine the wrath Mr. Measures must have received when he took on the linear manufacturers.

73, Rob, NC0B

"Carcia, Frank A. HS" wrote:

- > Hi All,
- > The problem with the ARRL / QST is advertising revenue.
- > They will not bite the hand that feeds it. I don't get QST
- > anymore because the price is too high for a rag full of
- > adds claiming greatness. Just ask Rick Measures who
- > tried to publish the truth about the linear amplifiers
- > advertised in QST. Most of them are over priced
- > unstable junk. Many ham operators I know share
- > my views. I do get QEX which is a very nice rag.
- > Rob you have been a standard for receiver quality.
- > I have checked your numbers on various radios and
- > agree within a dB or so. Keep up the good work!
- > fc

> > -----Original Message-----

>> From: Rob & Terri Sherwood [SMTP:rob@sherweng.com]

> > Sent: Wednesday, June 20, 2001 12:14 AM

> > To: mtracy@arrl.org; Premium, RX

>> Subject: Prem-Rx: 5 kHz dynamic range testing

> >

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> > 73, Rob Sherwood, NC0B

-----  
Date: Wed, 20 Jun 2001 11:10:44 -0700 (PDT)  
From: Robert Kelley <pasha@kali.com>  
Subject: Re: Prem-Rx: 5 kHz dynamic range testing

QEX was an ARRL publication devoted to experimental radio. It still is, but merged with Communications Quarterly.

Check out Richard Measures' web site it makes for interesting reading.

<http://www.vcnet.com/measures/>

---... --- -- .. . - - - . - - - . - - - . Build a man a fire, and he's warm for a day. Set a man on fire, and he'll be warm for the rest of his life.

On Wed, 20 Jun 2001, Rob & Terri Sherwood wrote:

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> > > 73, Rob Sherwood, NC0B

>

-----  
Date: Thu, 21 Jun 2001 02:16:07 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: MARCONI H1550 TRANSMITTER DRIVE UNIT

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Hi, list, Having asked the list for info. on a Marconi h2550 receiver, it has now been identified as a H1550 transmitter drive unit. As I do not have a HF license, it is not a lot of use to me now, and is taking up valuable recreational space. I have therefore decided to part with it. The unit is in as-new condition, covers 500KHz to 30MHz, powers up, passes all its own BITE routines, and gives an output when required. It is a magnificent thing, has DSP, ETC., the sad thing is that I have no other info. on it, except for a scanned copy of a sales/spec. brochure, courtesy of another list member who is familiar with the things. If anyone is interested in the spec. sheet, e-mail me and I will attach it to a return e-mail. It takes about 6 min to download. What I am looking for, in UK, as the thing weighs 20Kg, is an exchange for a receiver of the premium-rx type, preferably 19 "rack mounted, but WHY?? If nothing comes along, I will consider cash offers. Thanks VERY VERY much for all the info. etc. I received as a result of my request on this list, people like you make this hobby so much more enjoyable, All the best, Dave

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> < FONT FACE= arial,helvetica  
> < FONT SIZE= 2  
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> scanned copy of a sales/spec. brochure, courtesy of another list member who  
> is familiar with the things. If anyone is interested in the spec. sheet,  
> e-mail me and I will attach it to a return e-mail. It takes about 6 min to  
> download. What I am looking for, in UK, as the thing weighs 20Kg, is an  
> exchange for a receiver of the premium-rx type, preferably 19 "rack mounted,  
> but WHY?? If nothing comes along, I will consider cash offers. Thanks VERY  
> VERY much for all the info. etc. I received as a result of my request on this  
> list, people like you make this hobby so much more enjoyable, All the best,  
> Dave  
>

--part1\_35.16cc3626.2862eb27\_boundary--

-----  
Date: Thu, 21 Jun 2001 14:02:33 -0700  
From: jan@skirrow.org  
Subject: Prem-Rx: RA6772 Shaft Encoder Disassembly Info Needed???

Hi Group!

I am working on a Racal 6772 that appears to have a problem in the tuning shaft encoder. I need to check out the inside bits but am uncertain about disassembly.

The manual I have is not helpful. There are a number of potential disassembly screws on the front and back of the encoder, as well as two collets on the shaft. I'd like to not end up with a spray of loose parts, and wonder if anyone can tell me the correct way to get inside this thing.

Thanks!

Jan Skirrow

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Thu, 21 Jun 2001 17:29:32 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: H1550

--part1\_e0.1674408f.2863c13c\_boundary Content-Type: text/plain; charset="US-ASCII" Content-Transfer-Encoding: 7bit

Hi, list, I am having a really great response to my offer of an exchange for a premium-rx, The offer is not closed, I just need a few days to consider all the fine receivers on offer. I wish I had 10 of these units, I could build the best receiver collection for miles. All the best, Dave

--part1\_e0.1674408f.2863c13c\_boundary Content-Type: text/html; charset="US-ASCII" Content-Transfer-Encoding: 7bit

> < FONT FACE= arial,Helvetica  
> < FONT SIZE= 2  
> Hi, list,

> I am having a really great response to my offer of an exchange for  
> a premium-rx, The offer is not closed, I just need a few days to consider all  
> the fine receivers on offer. I wish I had 10 of these units, I could build  
> the best receiver collection for miles. All the best, Dave  
>

--part1\_e0.1674408f.2863c13c\_boundary--

-----  
Date: Thu, 21 Jun 2001 17:44:45 -0400  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org  
Subject: Prem-Rx: Archives attachments question

I've been going through the archives on the web page and the postings have attachments converted to text form. Does anyone have (or know of) a utility that I can use to convert these back to their original form?

Thanks.

--Michael Tracy, KC1SX, ARRL Lab

-----  
Date: Fri, 22 Jun 2001 14:17:34 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com  
Subject: Prem-Rx: FW: FW:

This message is in MIME format. Since your mail reader does not understand this format, some or all of this message may not be legible.

- -----\_ = \_NextPart\_000\_01C0FB47.9BBDF060 Content-Type: text/plain

Hi All, A friend sent me a schematic of the RF amplifier used in the Racal RA6790. I would use a 2N5109 in place of the 2N3866 as it is the compliment of the 2N5160 and has a better noise figure. Someone was looking for ideas a while back. Looks like a nice broad band circuit with 7 to 10 dB of gain. fc

-----  
**premium-rx-digest Tuesday, June 26 2001 Volume 01 : Number 134**

-----  
Date: Fri, 22 Jun 2001 17:20:22 -0600  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca  
Subject: Prem-Rx: RA1792 Ops Manual

I am looking for a copy of the Operator's manual for the Racal RA-1792; digital or hardcopy is fine. Name your terms :-)

Thanks.

Shaun

- ----- Shaun Merrigan smerriga@compusmart.ab.ca

-----  
Date: Sat, 23 Jun 2001 14:01:19 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk  
Subject: Prem-Rx: Shakespeare

It's been quiet of late, but I know you are all out there:

"There's not a man I meet but doth salute me, as if I were their well acquainted friend; and every one doth call me by my name"

"Comedy of Errors" Act IV, Sc. III

John Wilson - ----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37  
9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Sat, 23 Jun 2001 13:40:29 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: Re: Prem-Rx: Shakespeare

John, old friend! How've you been all this time? Hello to your family too, and best wishes to you all!  
Let's do lunch soon--I'll have my people get with your people. TTFN!

--howard n7exn

> From: "John Wilson" <johnwilson@freezone.co.uk>

>

To: <johnwilson@freezone.co.uk>

> Date: Sat, 23 Jun 2001 14:01:19 +0200

> To: "premium" <premium-rx@kahuna.sdsu.edu>

> Subject: Prem-Rx: Shakespeare

> It's been quiet of late, but I know you are all out there:

> "There's not a man I meet but doth salute me, as if I were their well

> acquainted friend; and every one doth call me by my name"

-----  
Date: Sat, 23 Jun 2001 19:23:12 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: Shakespeare

Thanks Howard, the list was going through a quiet period so I thought I would check if anyone was alive!! You have caught the English mannerisms beautifully. 73 John

-----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Howard L Ritter, Jr Sent: 23 June 2001 19:40

To: johnwilson@freezone.co.uk; premium

Subject: Re: Prem-Rx: Shakespeare

John, old friend! How've you been all this time? Hello to your family too, and best wishes to you all!  
Let's do lunch soon--I'll have my people get with your people. TTFN!

--howard n7exn

> From: "John Wilson" <johnwilson@freezone.co.uk>

>

To: <johnwilson@freezone.co.uk>

> Date: Sat, 23 Jun 2001 14:01:19 +0200

> To: "premium" <premium-rx@kahuna.sdsu.edu>

> Subject: Prem-Rx: Shakespeare  
> It's been quiet of late, but I know you are all out there:

> "There's not a man I meet but doth salute me, as if I were their well  
> acquainted friend; and every one doth call me by my name"

-----  
Date: Mon, 25 Jun 2001 21:15:56 +0900  
From: Takashi Kuroda <tkuroda@tke.att.ne.jp>  
Subject: Prem-Rx: RE: RA6790GM vs. RA6790A

Hi! I was offered the Racal RA6790(A) with LED light at LCD displays recently. Is it better than the RA6790GM? Is it a newer version than the RA6790GM? I appreciate any information. Thank you.

Sincerely,

Takashi KURODA e-mail: tkuroda@tke.att.ne.jp

-----  
Date: Mon, 25 Jun 2001 11:40:07 -0400  
From: "john hoopes" <jdhatti@hom.net>  
Subject: Prem-Rx: RA6790 EPROM

Hello All,

I was wondering if anyone out there has an EPROM for the RA 6790 G/M that allows it to tune below 500KHZ or perhaps the source or bin code. Any help would be greatly appreciated.

73 John

-----  
Date: Mon, 25 Jun 2001 12:41:53 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Thomas Roth

Gentlemen:

Thomas Roth is our newest member. Tom lives in Hannover, North Germany where he works as a network technician setting up UNIX and LINUX networks and clusters. He has been SWLing for the past 38 years and got his ham ticket 16 years ago (DL1CQ).

His "true love" lies in his professional grade RXs. He operates two RACAL RA-1792, in addition to; one Motorola R-390/URR, one Hammarlund SP-600JX, two Siemens E-311e and two Rohde&Schwarz EK-07/D2. Tom states, "I freely admit "my Premium-RX" are clearly the two EK-07". Tom's 07s often operate for months at a time and he is impressed that over the past 10 years he hasn't had any technical problems.

He is looking for a RA-6793A for which he states he would swap TWO 1792s for....? Hopefully, he will score a 6793 at the South German Hamfest taking place this weekend.

You can e-mail Tom at: Thomas Roth [th.roth@knuut.de] or catch him on the band as: DL1CQ (FISTS #6402, CC #1036, AGCW-DL #2943); OR check out his WEB page at: <http://www.qsl.net/dl4obn>

-----  
Date: Tue, 26 Jun 2001 00:12:44 -0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Re: Prem-Rx: New Member: Thomas Roth

Hi all,

and thanks Greg for the introduction. Greg was very kind in omitting a few points that I submitted. For instance that I'm not a very technical person when it comes to electronics and usually run to a friend when something's amiss with one of my radios ;-)

The reason I mentioned being willing to swap my two 1792s for one 6793A is due to the fact that mine aren't exactly great performers. I am a bit disappointed with them. But they'll stay here until they've got a proper re-alignment. Let's see how they behave after that. My fascination with the 6793A comes through the friend I always run to when in trouble, hi. He has one of them and it works great.

Though I also have to say that I have yet to find a modern RX that outperforms my EK-07/D2 RXs. Had an WJ HF-1000 here for three months and tested it against the EK-07s and Siemens E-311s and was not impressed.

The two RXs that I had come close to the EK-07s were a Telefunken E-1800A and a Plessey PR-2280. Generally speaking I'm mostly interested in European receivers these days. There's so much stuff out there on the net about American built equipment, I think it's about time to get some EU gear into the picture as well.

And finally, my main interest lies in UTE listening with an emphasis on CW and RTTY stations. After all, I'm a very enthusiastic keybasher myself ;-) When the season is upon us I also greatly enjoy tropical band dxing. And of course, the RXs also get used on the hambands. Presently I'm awaiting the delivery of a brand-new-in-the-crate Rohde&Schwarz SK-010 TX. That's the matching low power (100w) TX to go with EK-07s. The big KW TX would be the SK-1, but that's a bit out of my league, hi hi...

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 <http://www.qsl.net/dl4obn>

-----  
Date: Mon, 25 Jun 2001 20:59:22 EDT  
From: DAVEI NBHAM@aol.com  
Subject: Prem-Rx: VLF EPROM's for the Racal RA6790/GM

In a message dated 6/25/01 12:05:43 PM Central Standard Time, jdhatti@hom.net writes:

<< Hello All,

I was wondering if anyone out there has an EPROM for the RA 6790 G/M that allows it to tune below 500KHZ or perhaps the source or bin code. Any help would be greatly appreciated.

73 John

> \*\*\*\*\* John, I have a couple of sets of the EPROM's that program the Racal RA6790/GM to tune down to 0.000000 kHz. I asked a couple of weeks ago on this reflector if anyone wanted them and got a bunch of orders. It is gonna be a couple weeks until I can get the chips and program them. Cost will be \$20 postpaid in USA . E mail me if you want a set. Regards, Dave

-----  
Date: Tue, 26 Jun 2001 07:32:33 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: Hewlett Packard date codes

Good morning all, Can anyone help? Is there a "Year of Manufacture" code hidden in the serial number of HP test equipment, or is there any other sure way of knowing when an item was manufactured?? 73 John Wilson

----- John Wilson Stone Hill Kings Nympton Umberleigh Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Tue, 26 Jun 2001 07:54:12 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Hewlett Packard date codes

Hi, Look at the date codes on the internal ICs and you will have a clue. fc

> -----Original Message-----  
> From: John Wilson [SMTP:johnwilson@freezone.co.uk]  
> Sent: Tuesday, June 26, 2001 1:33 AM  
> To: premium  
> Subject: Prem-Rx: Hewlett Packard date codes  
> Good morning all,  
> Can anyone help? Is there a "Year of Manufacture" code hidden in the  
> serial  
> number of HP test equipment, or is there any other sure way of knowing  
> when  
> an item was manufactured??  
> 73  
> John Wilson

> -----  
> John Wilson  
> Stone Hill  
> Kings Nympton  
> Umberleigh  
> Devon  
> EX37 9TR  
> Tel: 01769 573047  
> Fax: 01769 574158

-----  
Date: Tue, 26 Jun 2001 08:22:57 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member- Arthur Shulman

Gentlemen:

From a small village of Waterford, about 80m west of Toronto, comes our newest member, Arthur Shulman. Art's e-mail is: dentist@nornet.on.ca, which just about sums up what he does when NOT working on radios. However, I should add his background also included some electrical engineering work.

Art's interest in electronics, and specifically radio communications, dates back to the late 40's, and began intensively when he obtained his amateur license in 1954. (Presently VE3ZV). However, his real interest is in listening, rather than talking. Although his primary activity area is VHF/UHF monitoring, he has taken an interest in LF/HF services as well. Sadly, he states, ".....because it is largely a passive activity, the former keeps me amused with local activity but steals time that could be devoted to the latter. This has tended to concentrate around receiving WEFAX, NAVTEX, and RTTY transmissions whenever they present. This I do with a Universal M1200 decoder, and sometimes with various software decoders."



Art operates an HF-1000 as well as lists a number of other pieces of hardware. Planned projects in process include INMARSAT and MILSAT receiving capability, and improving antenna facilities for all installed receivers.

Our newest member "stumbled" upon our List while researching FET preamp circuits for a 137mhz weather station. He was impressed by the posts , and has read the archives from the beginning to week number #133 (ed note: it is obvious that Art has a great deal of free time!). He mentions the "quality of the commentary and the distinguished credentials of many of our List members. (Some of whom I recognized by reputation!)"

You can contact Art via his e-mail: dentist@nornet.on.ca If you are a LF/HF type, here is another member of your group.

Greg

-----  
Date: Tue, 26 Jun 2001 10:50:30 -0400  
From: jeffa@ix.netcom.com  
Subject: Re: Prem-Rx: Hewlett Packard date codes

This is what I was told some time ago (so take it with a grain of salt): Take the first two digits of the serial number and add them to 1960. The result is the year of manufacture.

For example, let's determine the year from the serial number 1743A02454.

The first two digits are 17. Therefore the year of manufacture is 1977.

- - Jeff Anderson, WA6AHL

johnwilson@freezone.co.uk wrote:

> Good morning all, Can anyone help? Is there a "Year of Manufacture" code hidden in the serial number of HP test equipment, or is there any other sure way of knowing when an item was manufactured?? 73 John Wilson

- ----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Tue, 26 Jun 2001 10:12:50 -0700  
From: "John Miles" <jmiles@pop.net  
Subject: Re: Prem-Rx: Hewlett Packard date codes

Actually this yields the date of the last production revision, not necessarily the date of manufacture. On older gear it's likely to be the same, but on newer, more "settled" products the date code may be a couple of years behind the actual date of manufacture.

Checking TTL and capacitor date codes across multiple boards is still the best way.

- - - jm

- ----- Original Message -----

From: <jeffa@ix.netcom.com  
To: <johnwilson@freezone.co.uk  
> Cc: "premium" <premium-rx@kahuna.sdsu.edu  
> Sent: Tuesday, June 26, 2001 7:50 AM  
Subject: Re: Prem-Rx: Hewlett Packard date codes

> This is what I was told some time ago (so take it with a grain of salt): Take the first two digits of the serial number and add them to 1960. The result is the year of manufacture.

- > For example, let's determine the year from the serial number 1743A02454.
- > The first two digits are 17. Therefore the year of manufacture is 1977.

-----  
 Date: Tue, 26 Jun 2001 13:49:11 -0400  
 From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
 Subject: RE: Prem-Rx: VLF EPROM's for the Racal RA6790/GM

Hi, I think Colin Trass, [www.visualradios.com](http://www.visualradios.com) can help you. You can also check out his remote software. fc

- > -----Original Message-----
- > From: DAVEI NBHAM@aol.com [SMTP:DAVEI NBHAM@aol.com]
- > Sent: Monday, June 25, 2001 8:59 PM
- > To: premium-rx@kahuna.sdsu.edu
- > Subject: Prem-Rx: VLF EPROM's for the Racal RA6790/GM
- > In a message dated 6/25/01 12:05:43 PM Central Standard Time,
- > jdhatti@hom.net
- > writes:

> << Hello All,

- > I was wondering if anyone out there has an EPROM for the RA 6790 G/M that
- > allows it to tune below 500KHZ or perhaps the source or bin code. Any
- > help
- > would be greatly appreciated.

> 73  
 > John

>

> \*\*\*\*\*

- > John,
- > I have a couple of sets of the EPROM's that program the Racal RA6790/GM to

- > tune down to 0.000000 kHz. I asked a couple of weeks ago on this reflector
- > if
- > anyone wanted them and got a bunch of orders. It is gonna be a couple
- > weeks
- > until I can get the chips and program them. Cost will be \$20 postpaid in
- > USA
- > .
- > E mail me if you want a set.
- > Regards,
- > Dave

-----  
 Date: Tue, 26 Jun 2001 12:45:04 -0600  
 From: Rob & Terri Sherwood <rob@sherweng.com>  
 Subject: Re: Prem-Rx: Hewlett Packard date codes

This is true. But something that was in production for years, like the 8640B, it gives a good idea of the approximate vintage. I have a few really low serial numbered pieces of HP equipment, like my 5345A

counter. Strangely enough, older is better with this one in one respect, as instruments that were only a little newer than mine had contamination problems in some of the custom (out of production) ICs. I guess I am lucky mine has worked so well for 20 years.

John Miles wrote:

- > Actually this yields the date of the last production revision, not
- > necessarily the date of manufacture. On older gear it's likely to be the
- > same, but on newer, more "settled" products the date code may be a couple of
- > years behind the actual date of manufacture.

- > Checking TTL and capacitor date codes across multiple boards is still the
- > best way.

> -- jm

> ----- Original Message -----

> From: <jeffa@ix.netcom.com>

> To: <johnwilson@freezone.co.uk>

> Cc: "premium" <premium-rx@kahuna.sdsu.edu>

> Sent: Tuesday, June 26, 2001 7:50 AM

> Subject: Re: Prem-Rx: Hewlett Packard date codes

- > > This is what I was told some time ago (so take it with a grain of salt):

- > Take the first two digits of the serial number and add them to 1960. The
- > result is the year of manufacture.

- > >

- > > For example, let's determine the year from the serial number 1743A02454.

- > >

- > > The first two digits are 17. Therefore the year of manufacture is 1977.

- > >

-----  
Date: Wed, 27 Jun 2001 06:01:24 +0900

From: tkuroda@tke.att.ne.jp

Subject: Prem-Rx: Re: 6790GM vs 6790A

Dear Mark,

Thanks for your comment on the RA6790. Do you know if there are any differences in circuitry or performance? A dealer says it is a newer version than the RA6790GM but Fred Osterman's book says it is an earlier version. So, I am rather puzzled. I appreciate any further input.

Best regards,

Takashi Kuroda

"Mark S. Holden" <msholden@mail2.nai.net>

> \$B\$5\$S!' (B

> Hi

- > The main difference between the GM and GMA version seems to be the LED lights instead of bulbs.

- > The LED's don't burn out nearly as often as the bulbs, so that's good.

- > But personally, I think the Racal 6790 radios are over rated. My Harris RF-550 is a much better performer for everything but RTTY, and at least in the USA, it costs less.

> Even my simple Standard SR-428 out performs my 6790 for listening.

> Regards,

> Mark

>

-----  
Date: Wed, 27 Jun 2001 01:01:28 -0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Prem-Rx: EGS1200 ???

- --Boundary=\_XrJmOWFrxsjyBldbEFSArCBynEcd Content-Type: text/plain Content-Transfer-Encoding: quoted-printable

Gentlemen,

has anyone ever seen this Telefunken setup or heard about it ??? The RX can be remote controlled and a CW and RTTY demodulator comes with the rig. Sorry, I don't have a better picture...

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 <http://www.qsl.net/dl4obn>

-----  
premium-rx-digest Friday, June 29 2001 Volume 01 : Number 135  
-----

Date: Tue, 26 Jun 2001 17:50:41 -0400  
From: Al Klase <skywaves@bw.webex.net>  
Subject: Re: Prem-Rx: RE: RA6790GM vs. RA6790A

Kuroda San,

I did not see anyone else respond to your post, so I will pass along the little bit of information I have. I have never seen any reference to RA6790A. There was the original RA6790 and the later RA6790GM. The GM has a different CPU and built-in-test-equipment (BITE). Thus. the GM has the "FAULT" LED next to the tuning knob the RA6790 does not. BITE is a desirable feature in a receiver of this complexity.

There were various versions of the RA6790GM that were delivered to different customers. They differ in which options are installed: filters, RF amp, independent sideband, VLF tuning, etc. They all have similar electrical performance. For instance, I have a RA6790GM-13. It has soldered in Collins filters and an RF amp. The part number appears on a small tag on the rear panel.

Later production "GM" have LED illumination for the LCD displays. This is highly desirable as the bulbs in the older sets are almost always burned out.

The only place I've seen an "A" designation is on military RA6790GM's designated R-2174A(P)/URR. Osterman's book claims these have "18 bandwidths". Mine has just the normal 7 filter slots.

Hope this helps.

Best regards, Al

Takashi Kuroda wrote:

> Hi! I was offered the Racal RA6790(A) with LED light at LCD displays

> recently. Is it better than the RA6790GM? Is it a newer version than the  
> RA6790GM? I appreciate any information. Thank you.

> Sincerely,

> Takashi KURODA

> e-mail: tkuroda@tke.att.ne.jp

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

-----  
Date: Wed, 27 Jun 2001 17:59:00 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: H-P date codes

Hello everybody, My sincere thanks to all who replied to my query. I can now confirm that the dealer who told me that my second 8640B was manufactured in 1989 was lying!! The date code from the serial, confirmed by IC date codes shows that it was made in 1980 - but perhaps he mis-read the serial number as 89\*\*\* instead of 80\*\*\*. I'll let him have the benefit of the doubt. I have no doubt that we will be seeing the Rohde & Schwarz EK-07 appearing in postings before to long - but not from me just yet. 73 and thanks again to all, John Wilson

- ----- John Wilson Stone Hill Kings Nympton Umberleigh Devon EX37 9TR Tel: 01769  
573047 Fax: 01769 574158

-----  
Date: Wed, 27 Jun 2001 14:48:57 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: H-P date codes

Hi All, My 8640B has wafer switches behind the front panel. Some of the newer models used custom integrated switches that are hard to do repairs around. An HP guy told me, the contacts vanish easily. I'm happy to have the older model for that reason. I'm not sure of the age though. I'm referring to the two switches to the left of the tuning knob. Band and FM width if I remember. If your unit works you may have a better unit since HP no longer supports parts. The HP guy told me it is very hard to work on that assembly. The wafer assembly looks pretty easy to deal with. fc

> -----Original Message-----

> From: John Wilson [SMTP:johnwilson@freezone.co.uk]

> Sent: Wednesday, June 27, 2001 11:59 AM

> To: premium

> Subject: Prem-Rx: H-P date codes

> Hello everybody,

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> in postings before to long - but not from me just yet.

> 73 and thanks again to all,

> John Wilson

> -----  
> John Wilson  
> Stone Hill  
> Kings Nympton  
> UMBERLEIGH  
> Devon  
> EX37 9TR  
> Tel: 01769 573047  
> Fax: 01769 574158  
> -----

Date: Wed, 27 Jun 2001 14:43:47 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Re: Prem-Rx: H-P date codes

Another thing to look for is the plastic gears that run the band switch assembly. The older gears are white, and tend to crack with age. The newer ones and the replacement gears have a greenish cast to them. I sold off my two 8640As for several reasons, one of which was the daunting prospect of having to replace the cracked gears.

"Carcia, Frank A. HS" wrote:

> Hi All,  
> My 8640B has wafer switches behind the front panel. Some of the  
> newer models used custom integrated  
> switches that are hard to do repairs around. An HP guy told me, the  
> contacts vanish easily.  
> I'm happy to have the older model for that reason. I'm not sure of  
> the age though. I'm referring  
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> If your unit works you may have a better unit since HP no longer  
> supports parts. The HP guy told me  
> it is very hard to work on that assembly. The wafer assembly looks  
> pretty easy to deal with. fc

>  
> > -----Original Message-----  
>> From: John Wilson [SMTP:johnwilson@freezone.co.uk]  
> > Sent: Wednesday, June 27, 2001 11:59 AM  
> > To: premium  
>> Subject: Prem-Rx: H-P date codes  
> >  
> > Hello everybody,  
> > My sincere thanks to all who replied to my query. I can now confirm that  
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> > John Wilson  
> >  
> > -----  
> > John Wilson  
> > Stone Hill  
> > Kings Nympton  
> > Umberleigh  
> > Devon  
> > EX37 9TR  
> > Tel: 01769 573047  
> > Fax: 01769 574158  
-----

Date: Thu, 28 Jun 2001 00:39:28 -0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Prem-Rx: Multicouplers

Hi all,

hope this is not too off-topic, so I'll keep it short. What do you folks think of Stridsber muticouplers ??? The MCA104, four ports, 100kHz-50MHz is the one I'm interested in...

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 <http://www.qsl.net/dl4obn>

-----  
Date: Wed, 27 Jun 2001 19:58:26 -0400  
From: "Walt Novinger" <wnovinger@nc.rr.com>  
Subject: Re: Prem-Rx: Multicouplers

Thomas,

I have an 8-port unit that I really like. It is in my basement and feeds a number of receivers throughout the house. As far as I can tell by listening, there is no added noise, and it seems to work as advertised across the frequency range. Highly recommended.

Walt - ----- Walt Novinger Raleigh, NC wnovinger@nc.rr.com - ----- Original Message -----  
-

From: "Thomas Roth" <th.roth@knuut.de>  
To: <premium-rx@kahuna.sdsu.edu>  
> Sent: Wednesday, June 27, 2001 10:39 PM  
Subject: Prem-Rx: Multicouplers  
> Hi all,

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> of Stridsber muticouplers ??? The MCA104, four ports, 100kHz-50MHz is the one  
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> 73 de Thomas, DL1CQ  
> FISTS #6402, CC #1036  
> AGCW-DL #2943  
> <http://www.qsl.net/dl4obn>  
-----

Date: Thu, 28 Jun 2001 09:56:13 +0900

From: Takashi Kuroda <tkuroda@tke.att.ne.jp>  
Subject: Prem-Rx: RE: RA6790GM vs. RA6790A

Hi! Mark, Klase-san, and Rob,

Thank you very much for all the information you guys have given me. A dealer has just confirmed that the receiver which is being offered to me is a type "R-2174A(P)/URR" with fault LED and LED backlit. So, I am now studying to purchase it.

Sincerely,

Takashi Kuroda

-----  
Date: Wed, 27 Jun 2001 20:52:44 -0700  
From: "Don Nelson" <ulformat@teleport.com>  
Subject: Re: Prem-Rx: Multicouplers

We use several of the 8:1 and 4:1 multicouplers from Stridsberg. Never any loss nor crosstalk. They can be cascaded to make, say a 32:1 by combining 1 4:1 and 4 8:1, with no loss nor crosstalk

Stridsberg stands behind the parts - has a no-quibble lifetime guarantee Don Nelson

- ---- Original Message ----

From: "Thomas Roth" <th.roth@knuut.de>  
To: <premium-rx@kahuna.sdsu.edu>  
> Sent: Wednesday, June 27, 2001 7:39 PM  
Subject: Prem-Rx: Multicouplers  
> Hi all,

> hope this is not too off-topic, so I'll keep it short. What do you folks think  
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> 73 de Thomas, DL1CQ  
> FISTS #6402, CC #1036  
> AGCW-DL #2943  
> <http://www.qsl.net/dl4obn>

-----  
Date: Wed, 27 Jun 2001 22:59:42 -0500  
From: "Joe Watson" <wwatson@mmcable.com>  
Subject: Prem-Rx: CU-5069 Antenna Coupler Question

This is a multi-part message in MIME format.

- =====\_NextPart\_000\_0013\_01C0FF5C.D9FF1160 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

I have a CU-5069 antenna coupler which I have been very happy with. It = is a distribution amp which feeds all of my receivers. = 20

Unfortunately, I had a power surge recently which damaged a computer and = an intercom. There was very possibly also some electrostatic stuff on = the antenna at the same time. = 20 Alas! The coupler no longer passes the antenna signal through!



Does anyone in the group have docs for this unit? Has anyone = experienced anything similar with this unit? = 20

My guess is that one or more of the RF amp transistors have been zapped. = Before I do surgery, I thought I would poll the group and see if anyone = has any info.

Thanks.

Joe Watson

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Content-Transfer-Encoding: quoted-printable

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> </STYLE

> </HEAD

> <BODY bgColor= 3D#ffffff

> I have a CU-5069 antenna coupler which = I have been= 20 very happy with. It is a distribution amp which feeds all of my= 20 receivers.

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> Alas! The coupler no longer = passes the= 20 antenna signal through!

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> Thanks.

> Joe Watson

>

>

- -----=\_NextPart\_000\_0013\_01C0FF5C.D9FF1160--

Date: Thu, 28 Jun 2001 01:37:24 -0400

From: A D Shulman DDS <dentist@nornet.on.ca

Subject: Prem-Rx: Stridsberg Multicouplers

My experience with these devices is so far limited to the MCA204 VHF and the MCA 804 UHF 4 port active devices. My experience has been quite satisfactory in regard to sensitivity, intermod, and desense performance, but of course this doesn't translate directly to a recommendation for the lower frequency devices in the same product line.

I wonder if I should acquire one of their 50khz-50mhz multicouplers, or whether LF/HF performance would be significantly better with a CU-5069 or similar device.

I like the Stridsberg product because of the small size, very low power consumption (no heat problem), and minimal space requirement.

Has any member done any side-by-side performance comparisons?

Arthur Shulman

Date: Thu, 28 Jun 2001 01:37:33 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Prem-Rx: Sick HP-680F

I had hoped that my first post to the group might be on a topic of more general interest, but it seems I am stuck with a problem of ailing test gear.

I have an aging but otherwise clean sig gen which I have not used for some time, and I dusted it off to do some measurements in the shack before discovering that it was dead on Band 'D', 95-210 mhz. Normal operation on all other bands.

Power supply and RF section voltages are normal per manual, and oscillator output is present but at 2/3 p-p compared to other bands. Inability to peak output amp.

Only components unique to Band 'D' seem to check out OK.

Is there anyone in the group familiar with this instrument? Or can someone refer me to an HP instrument user site?

It may be the feeling of the group that this topic does not belong here, and I agree, but any help via private e-mail would be appreciated.

Arthur Shulman

-----  
Date: Thu, 28 Jun 2001 07:03:10 +0100  
From: paul@paulg8gja.free-online.co.uk  
Subject: Prem-Rx: AN/SLR-23

Hello everyone, As a new member of the group I'm not sure if this receiver qualifies as it is a nominal 'countermeasures' rather than communications receiver. However several people over this side of the water have them, including at least one other group member, so here goes... The rx is an AN/SLR-23, described simply as 'HF Receiver' and manufactured by Sanders Associates. It is a 4U 19" rack unit, fully Tempest screened and operates with an associated multicoupler which feeds 5 receivers (and probably controls them too). There are separate log and linear IF paths and multiple bandwidths available as well as an obviously very complex - if completely impenetrable - synthesiser. All the internal boards are in separate EMC proof housings with all connections via coax; external communication to/from the unit is probably serial, the multiway connector at the rear having just 13 miniature coax inserts. I have spent nearly a year (intermittently!!) trying to trace the circuits with not much success, can anyone out there shed any light on these rather unusual receivers?

many thanks,

paul reeves

-----  
Date: Thu, 28 Jun 2001 10:42:06 -0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Prem-Rx: Re: Multicouplers

Morning Gentlemen,

and thanks for the numerous suggestions and opinions on the Stridsberg unit. They seem to be very well regarded. I'm off to the deep south now and hope to return with some goodies. Maybe I'll finally get that RA-6793A I'm after... ;-)

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 <http://www.qsl.net/dl4obn>

Date: Thu, 28 Jun 2001 03:27:50 -0500  
From: "herschel p mccullough" <w5hpm@airmail.net>  
Subject: Re: Prem-Rx: Multicouplers

I have this very coupler and several of the other Stridsberg couplers and they work very well.get one or more... - ----- Original Message -----

From: Thomas Roth <th.roth@knuut.de>  
To: <premium-rx@kahuna.sdsu.edu>  
> Sent: Wednesday, June 27, 2001 9:39 PM  
Subject: Prem-Rx: Multicouplers

Hi all,

hope this is not too off-topic, so I'll keep it short. What do you folks think of Stridsber muticouplers ??? The MCA104, four ports, 100kHz-50MHz is the one I'm interested in...

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 <http://www.qsl.net/dl4obn>

-----  
Date: Thu, 28 Jun 2001 11:30:11 -0400  
From: Michael Brown <piggin@mindspring.com>  
Subject: Prem-Rx: Preamps

First,thanks to those of you who had preamp ideas!Second, I have completed my new preamp.For many years I used a homebrew designed unit that used a single MPF-102 JFET.This unit yeilded about 10db of gain and was real good in the intermod department,with sane input levels being observed.I decided to "improve" the design by substituting a J310 JFET.The gain rose 3 to 5db and strong signal handling was about the same.All in all, I think it will be enough.I have never been a proponent of 20db+ gain preamps(with a premium-rx who needs the reduced IP3?)In fact, its hot enough that listening in the 15kc to 500kc range was excellent with a 30" whip!I will soon try a J309 since it has even higher gfs.Now, if the thunderstorms would only give me a break....

-----  
Date: Wed, 27 Jun 2001 15:09:56 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Re: 6790GM vs 6790A

Hi. I have a friend with a Harris 550 and a 6790. He thinks just the opposite.

> -----Original Message-----

> From: tkuroda@tke.att.ne.jp [SMTP:tkuroda@tke.att.ne.jp]

> Sent: Tuesday, June 26, 2001 5:01 PM

> To: Mark S. Holden

> Cc: premium-rx@kahuna.sdsu.edu

> Subject: Prem-Rx: Re: 6790GM vs 6790A

>

> Dear Mark,

> Thanks for your comment on the RA6790. Do you know if there are any  
> differences in circuitry or performance? A dealer says it is a newer  
> version than the RA6790GM but Fred Osterman's book says it is an earlier  
> version. So, I am rather puzzled. I appreciate any further input.

> Best regards,

> Takashi Kuroda

>

> "Mark S. Holden" <msholden@mail2.nai.net

> \$B\$5\$S!' (J

> > Hi

> >

> > The main difference between the GM and GMA version seems to be the LED  
> lights instead of bulbs.

> >

> > The LED's don't burn out nearly as often as the bulbs, so that's good.

> >

> > But personally, I think the Racal 6790 radios are over rated. My  
> Harris RF-550 is a much better performer for everything but RTTY, and at  
> least in the USA, it costs less.

> >

> > Even my simple Standard SR-428 out performs my 6790 for listening.

> >

> > Regards,

> >

> > Mark

> >

> >

> >

-----  
Date: Thu, 28 Jun 2001 10:12:13 -0600

From: Rob & Terri Sherwood <rob@sherweng.com

Subject: Re: Prem-Rx: Preamps

We use J309s and J310s in some of our products, and I consider them great devices. I would not, however, consider them adequate for a broadband preamp that is going to see DC to light, or at least 3 MHz to 30 Mhz with some type of low pass and high pass input protection. For this type of service we use a 2N5109 like in the Drake R-7 10 dB preamp. This bipolar device draws between 35 and 50 mA instead of less than 10 mA for a J3xx. (The J310 draws more currant then the J309.) If one uses a tuned input circuit, then the J310 family will likely do well as it will not be integrating so much spectrum. Of course it depends what one is using for an antenna. Even the 2N5109 needs low pass input protection, and running my 20 meter beam into it without any bandpass filtering blows it out of the water from urban FM and low-band VHF TV signals.

It is amazing the levels a preamp or radio can be subjected to from local MW, FM and TV signals in a urban environment. I just plugged my Hy-Gain 204BA 20 meter beam in an HP 8568B spectrum analyzer. There are over 10 signals in the - -15 dBm range between 60 and 108 MHz. Intermod just waiting to happen. When testing active whips (Dressler, RF Systems, or the active loop from Wellbrook, MW signals in excess of -10 dBm just blast a radio (or preamp) with over 20 signals of this level between 540 kHz to 1700 kHz.

It is no wonder that radios with little front end filtering like the 7030 have to at least have high pass and low pass filtering to keep the front end from seeing MW and FM/TV signals of enormous levels.

Michael Brown wrote:

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> my new preamp.For many years I used a homebrew designed unit that used a  
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> soon try a J309 since it has even higher gfs. Now, if the thunderstorms  
> would only give me a break....

-----  
Date: Thu, 28 Jun 2001 11:16:54 -0700  
From: "Dennis Polito W6DEN" <cloudhopper@home.com>  
Subject: Re: Prem-Rx: CU-5069 Antenna Coupler Question

This is a multi-part message in MIME format.

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Joe: I have the manual for this unit. I am leaving on a trip this morning. If you e-mail me with your particulars I will get a copy off to you next week when I return. Regards Dennis Polito ----- Original Message -----= 20

From: Joe Watson=20  
To: premium-rx@kahuna.sdsu.edu= 20 Sent: Wednesday, June 27, 2001 20:59 PM  
Subject: Prem-Rx: CU-5069 Antenna Coupler Question

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Thanks.

Joe Watson

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> < STRONG

> Joe:</STRONG

> < STRONG

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> < STRONG

> Regards</STRONG  
> <STRONG  
> Dennis = Polito</STRONG  
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style= 3D"FONT: 10pt arial"  
> < B  
> Subject:</B  
> Prem-Rx: CU-5069 = Antenna Coupler= 20 Question</DIV  
>  
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> Does anyone in the group have docs = for this= 20 unit? Has anyone experienced anything similar  
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> Thanks.  
> Joe = Watson  
>  
>  
>

--=\_NextPart\_000\_002A\_01C0FFC3.D633D2C0--

-----  
Date: Thu, 28 Jun 2001 14:44:03 EDT  
From: DAVEI NBHAM@aol.com  
Subject: Re: Prem-Rx: Sick HP-680F

In a message dated 6/27/01 11:40:32 PM Central Standard Time, dentist@nornet.on.ca writes:

<< It may be the feeling of the group that this topic does not belong here, and I agree, but any help via private e-mail would be appreciated.

Arthur Shulman

> \*\*\*\*\* Arthur, It would seem to me that your post is not off topic. Keeping up the test equipment necessary to keep the radios running is part of the radio hobby. Discussions about the beer necessary to power the operator of the radio and the test equipment may, however, be stretching things a bit. hmmm. I haven't fired up my HP-608 in a long time. Wonder if it still works? Regards, Dave

-----  
Date: Thu, 28 Jun 2001 16:08:03 -0400  
From: "Ed Tanton" <n4xy@att.net>  
Subject: Prem-Rx: RF Protection switching 'BRICK'

Hello folks... I finally think I am finished with the RF PROTECTION section of my larger project, an RF switching unit. This section will self-protect itself, and any receiver or distribution amp connected to it. It is NOT intended to replace lightning protection, but rather, act as an adjunct to T/R switching. All data inputs and outputs are opto-buffered, and are passed through. The schematic is done in Adobe PDF format. Please let me know if you find any errors, etc.

While it is going to be part of something a bit bigger (added HC-1 vacuum relays) it is completely stand-alone, and with the appropriate relay(s) should do a great job of protecting any receiver.

Start on: <<http://www.qsl.net/n4xy/hmbw1.html>  
> ...near the bottom of the page.  
73 Ed Tanton N4XY <n4xy@arrl.net>

Ed Tanton N4XY 189 Pioneer Trail Marietta, GA 30068-3466

website: <http://www.n4xy.com>

LM: ARRL QCWA AMSAT & INDEXA; SEDXC NCDXA GACW QRP-ARCI OK-QRP QRP-L #758  
K2 (FT) #00057

-----  
Date: Thu, 28 Jun 2001 14:41:54 -0700  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: CU-5069 Antenna Coupler Question

Hi Joe ...

The circuitry is VERY simple. I assume you've checked that all channels are dead? If so, I'd check the power supply first. If it's delivering juice to the four PCBs that contain the output drivers (purple wires) then the problem is most likely in the dual driver (the two transistors with the BIG heatsinks in the centre of the chassis). If it's just a few channels that are out, ignore them - unless you have 32 receivers and need every one ;

> )

If you have a scope/signal generator it's easy to trace the signal thru and isolate the problem. All the transistors in the RF part of the thing are the same, so if necessary you could cannibalize one output channel to replace the two drivers. These transistors are still available from some suppliers. Be careful doing any substituting - these are 5 watt RF transistors.

Hope this helps. Contact me if this is too cryptic!

Jan Skirrow

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Thu, 28 Jun 2001 18:39:21 -0400  
From: Michael Brown <piggin@mindspring.com>  
Subject: Prem-Rx: Preamp use(reply to Bob)

My preamp is designed to use either A. A 30 inch whip or B. Follow the preselector in the 3031A or a homebrew 4 band preselector for use with other units.Or C.As a loop amplifier.This is what I mean by keeping input levels sane.Used in this manner it works real well.I cant imagine using any designs that are broadband on a real big antenna here since I measure volts of MW RF from 5 station within 2 miles or so.Three of them will drive a loudspeaker to a decent level when its matched to a simple crystal set.I suspect some designs could work, but the resulting overdrive of my rigs mixer would be...bad.I prefer JFETs precisely because of their high input impedance, low current drain, and decent gain with low noise.But success depends on rational application of course.

-----  
Date: Fri, 29 Jun 2001 00:28:58 -0400  
From: Michael Brown <piggin@mindspring.com>  
Subject: Prem-Rx: loop antennas

I use 3 different loops here with the 3031As.2 are 4 footers that are for MW and longwave.One is a small 15" loop.The 4 footers are box style made from 1" PVC.The 15" is wound on 15PVC pipe.They work amazingly well.They are tuned by a giant breadslicer style tuning cap and are directly connected to the JFET amp.I note that some designs use a single turn that couples to a low impedance amp to drive the receiver. When I asked the guys at Mackay why the 3031A was not so sensitive below the broadcast band they stated the ship loops have amps in them which drive the receivers,so .15 microvolts didnt matter down there.Does anyone in the list have any ship loop antenna experience?How much gain do they use?Do they tune them remotely?And how big are they? Loops are pretty useful.....I guess if one were to own an ex-ship loop that would qualify as a premium-rx accessory for certain.

-----  
Date: Thu, 28 Jun 2001 21:50:33 -0700  
From: "Spencer Bahner" <spencer12345@email.msn.com>  
Subject: Prem-Rx: WJ 1400 MHz Receiver on Ebay

Has anyone at "premium-rx" bought one of the WJ LF to UHF receivers for sale on Ebay? There has been a slew of them in the last weeks and I was wondering what people were noticing in terms of performance and condition of these units? These are the receivers that use the 8628 series modules. Feel free to contact me directly via e-mail rather than posting if you prefer.

Thanks!

Spencer Bahner Seattle [spencer12345@msn.com](mailto:spencer12345@msn.com)

-----  
Date: Fri, 29 Jun 2001 01:55:38 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: Sick HP-680F

DAVEINBHAM@aol.com wrote:  
> In a message dated 6/27/01 11:40:32 PM Central Standard Time,  
> dentist@nornet.on.ca writes:



> << It may be the feeling of the group that this topic does not belong here,  
> and I agree, but any help via private e-mail would be appreciated.

> Arthur Shulman

>

> \*\*\*\*\*

> Arthur,

> It would seem to me that your post is not off topic.

Thanks David, for the clarification. I will keep the group informed of progress with the 608.

Arthur

-----  
Date: Fri, 29 Jun 2001 00:37:14 -0700  
From: matt parkinson <mparkinson1@socal.rr.com>  
Subject: Prem-Rx: Harris RF 590

I have just gotten a new to me RF 590 not an A model what is the difference? I have seen murphy surplus selling the pre selectors for the RF 590 and A model what would that do for me if anything does anyone have a good answer for me ? I was thinking about buying the pre selector if it is useful to me. So far this is a great receiver still testing it out against my EAC R-390a Thanks Matt Parkinson KE6OUS

-----  
Date: Fri, 29 Jun 2001 06:51:44 -0400  
From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>  
Subject: Re: Prem-Rx: CU-5069 Antenna Coupler Question

Good luck in fixing your problem, Joe. The units are very easy to troubleshoot and repair. I've had the same problem with my multicoupler, and it turned out to be the transistor in the driver board -- the one mounted in the circular heatsink. I believe it was a 2n5160, which is a bit hard to find, but there are many equivalent transistors available. I used an equivalent transistor and it has worked fine ever since. I disconnect one bay of 16 outputs (just disconnect the power supply wire from the bank ), to cut down heat in the unit, and I also run mine on a variac at about 110V -- again to keep the heat down. I leave mine on 24 hours a day. 73, Jim Garland W8ZR

At 08:35 PM 6/28/2001 , you wrote:

> Yes it is the 32 channel unit you mentioned.  
> One of the group members sent me some fairly detailed info and another is  
> sending me a copy of the manual. So, I think I will be okay, but I will  
> holler if more help is needed.

> Thanks!

> Joe

> ----- Original Message -----

> From: <mail To:4cx250b@miavx1.acs.muohio.edu>  
> James C. Garland

> To: < mail To:wwatson@mmcable.com>  
> Joe Watson

> Sent: Thursday, June 28, 2001 9:30 AM

> Subject: Re: Prem-Rx: CU-5069 Antenna Coupler Question

>

> Hi Joe,

> Is the CU-5069 the 32-output TMC multicoupler? If it is, it's very easy

> to repair, and I'd be glad to help you with the details.

> Regards,

> Jim Garland W8ZR

>

> At 10:59 PM 6/27/2001 -0500, you wrote:

> >

>

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> <?param Arial

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> I have a CU-5069 antenna coupler

> which I have been very happy with. It is a distribution amp which feeds

> all of my receivers.

> <?/smaller

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> <?param Arial

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> < ?param Arial  
> < ?smaller  
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> < ?smaller  
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> < ?/smaller  
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> < ?fontfamily  
> < ?param Arial  
> < ?smaller  
> Thanks.  
  
> < ?/smaller  
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> < ?fontfamily  
> < ?param Arial  
> < ?smaller  
> Joe Watson  
  
> < ?/smaller  
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>

> \*\*\*\*\*

> James C. Garland

> Office of the President

> Miami University

> Oxford, OH 45056

> (513) 529-2346

> \*\*\*\*\*

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> Good luck in fixing your problem, Joe. The units are very easy to troubleshoot and repair. I've had the same problem with my multicoupler, and it turned out to be the transistor in the driver board - - the one mounted in the circular heatsink. I believe it was a 2n5160, which is a bit hard to find, but there are many equivalent transistors available. I used an equivalent transistor and it has worked fine ever since. I disconnect one bay of 16 outputs (just disconnect the power supply wire from the bank ), to cut down heat in the unit, and I also run mine on a variac at about 110V -- again to keep the heat down. I leave mine on 24 hours a day.

> 73,

> Jim Garland W8ZR

>

> At 08:35 PM 6/28/2001 , you wrote:

>

> <blockquote type= cite cite

> Yes it is the 32 channel unit you mentioned.

>

> One of the group members sent me some fairly detailed info and another is sending me a copy of the manual. So, I think I will be okay, but I will holler if more help is needed.

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>

> Thanks!

>

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>

>

> Joe

>

> < font size= 3

> <blockquote type= cite cite

> ----- Original Message -----

> < b

> From: </b

> < a href= "mailto:4cx250b@miavx1.acs.muohio.edu"

> James C. Garland </a

>

> < b

> To: </b

> < a href= "mailto:wwatson@mmcable.com"

> Joe Watson </a

>

> < b

> Sent: </b

> Thursday, June 28, 2001 9:30 AM

> < b

> Subject: </b

> Re: Prem-Rx: CU-5069 Antenna Coupler Question

>

> Hi Joe,

> Is the CU-5069 the 32-output TMC multicoupler? If it is, it's very easy to repair, and I'd be glad to help you with the details.

> Regards,

> Jim Garland W8ZR

>

> At 10:59 PM 6/27/2001 -0500, you wrote:

> &gt;&gt;&gt;&gt;&gt;

> &lt;?fontfamily&gt;&lt;?param Arial&gt;&lt;?smaller&gt;I have a CU-5069 antenna coupler which I have been very happy with. It is a distribution amp which feeds all of my receivers.

> &lt;?/smaller&gt;&lt;?/fontfamily&gt;

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> &lt;?/smaller&gt;&lt;?/fontfamily&gt;

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Date: Fri, 29 Jun 2001 06:59:33 -0400  
From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>  
Subject: RE: Prem-Rx: RF Protection switching 'BRICK'

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charset="us-ascii"; format=flowed

Hi Ed, Tnx for your note. Re relays, I bought a bunch of PC-mounted high speed relays designed specially for RF switching. They're about the size of a DIP IC. I've not used them yet, but I'll check out their specs and let you know. They might be ideal for your application.

Re optio-isolation, I've just been through a major project (a high power autotuner) in which I optically isolate the stepper motors and rotary bandswitch from the microcontroller circuitry. I use a 5V power supply for the controller, and a 24V power supply for the motors and bandswitch. I keep the power lines completely separate, as well as the grounds. A good way to test for isolation is with an ohmmeter: it should show infinite resistance between any two points spanning the isolated circuits.

Good luck with your project, and I'll check you website from time to time to see how you're doing. 73,  
Jim W8ZR

At 06:51 PM 6/28/2001 , you wrote:

> Hi Jim... thanks for the ideas... they are outputs... the idea there being  
> that it's a line to pass around to ANY unit I build, all active low, so  
> everything passes through-sorta network-ring-style, but pulled up, and no  
> tokens! I haven't checked yet, but I'll bet I'm gonna be embarrassed about  
> that 1N270! As for the MPF-102, I think you're right... what I REALLY ought  
> to use in one of my N-ch Enh.mode MOSFET STI 222's (not a house nr... but I  
> might be recalling it slightly incorrectly. They aren't something like a MOS  
> 2N2222A... but with their mini-plastic power case, can certainly handle  
> enough current for relays-and ought to be more than fast enough. Got a bunch  
> of them surplus several years ago. Ditto the opto-couplers... got several  
> tubes of 'em a couple of months ago, and figured, what the heck... etc. I DO  
> plan to use 1500W clamps on every DC line, along with the stuff already on  
> the AC line (a LOT)... so surges will have their work cut out for them! And  
> the diodes across the relays... how could I leave those out?

> There are two candidates for K-2... THE (relatively) HV N/O relay: HOSFELT  
> sells a very nice 500V SPST mercury-wetted (there's no arrow on the body...  
> do Hg-wetted relays HAVE to be mounted a certain way?) relay that I bought  
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> that crucial, stand-off relay. The actual coil current for the other relays  
> (except the N/C reed) was under 5mA cuz their MIL-SPEC DIP reeds I got  
> (again) a while back, surplus. The N/C reed is a SIP with the same  
> procurement history. The other K2 candidate is really one of two: a  
> gold-contact glass reed,

> 1A SW and I forget the voltage on, but enough.  
> Both it, and the other choice, require your own coil. I made one up several  
> years ago, and got better than a 20kHz switching rate at a square-wave 12VDC  
> before the contacts started bouncing enough to cause the switched waveform  
> to deteriorate! So, I figure, if I really whomp that coil, using a higher  
> voltage, and a current-limiting resistor, it'll really switch fast! Anyway,  
> the 2nd reed choice is straight out of the Digikey catalog. It's the one  
> whose specs I referred to in the writeup. But again, you need your own coil.  
> Marlin P. Jones & Assoc. sells empty 12V solenoid coils that will do the job  
> nicely (that's what I orig. used for the experiment.)

> Many thanks again, Jim. Please keep an eye on this and keep me honest.

> 73 Ed Tanton N4XY <n4xy@arrl.net

>  
> Ed Tanton N4XY  
> 189 Pioneer Trail  
> Marietta, GA 30068-3466

> website: <http://www.n4xy.com>

> LM: ARRL QCWA AMSAT & INDEXA;  
> SEDXC NCDXA GACW QRP-ARCI  
> OK-QRP QRP-L #758 K2 (FT) #00057  
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 premium-rx-digest Tuesday, July 3 2001 Volume 01 : Number 136  
 -----

Date: Fri, 29 Jun 2001 07:00:32 -0700  
 From: John Reed <jreed@ponca.net



Subject: Re: Prem-Rx: Harris RF 590

matt parkinson wrote:

> I have just gotten a new to me RF 590 not an A model what is the  
> difference?

There are several differences:

The synthesizer in the A model is on one board. On the non-A models it consists of 5 or so boards.

There are differences in the way the IF filters are switched. The circuit was improved on the A model giving it better ultimate rejection.

The way the filters are set up is different on the two models. I'm familiar with the non-A model but not the A model.

There may be other differences, but that's all I'm aware of.

> I have seen murphy surplus selling the pre selectors for the RF 590 and  
> A model what would that do for me if anything does anyone have a good  
> answer for me ?

Unless you are very close to a transmitter (as on board a ship with transmitters and receivers) you don't need a preselector. The receiver you have probably already has one built in and if it does you would have a more sensitive receiver if you disconnected it.

John Reed

-----  
Date: Fri, 29 Jun 2001 10:46:12 -0400  
From: "Chuck Rippel" <avsl@erols.com>  
Subject: Prem-Rx: Harris RF 590

Totally agree there, John. I bypassed my preselector a few years ago and picked up about .5uv. As I measure it in AM, its now about .3uv v/s the .8uv previous to bypassing the preselector.

> Unless you are very close to a transmitter (as on board a ship with  
> transmitters and receivers) you don't need a preselector. The receiver  
> you have probably already has one built in and if it does you would have  
> a more sensitive receiver if you disconnected it.

> John Reed

----- Chuck Rippel

Reply To: AVSL@erols.com - -----

-----  
Date: Mon, 2 Jul 2001 10:19:22 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: Harris RF-230M and RF-230S (perhaps off topic)

Gentlemen-

Harris makes (or has made) a number of transceivers and exciters that incorporate attributes of early Premium-Rxs. Does anyone have information on the above two exciters/transceivers? Schematics, newsgroups, . . . at present I am stonewalled on these two.

Much thanks-

Greg

-----  
Date: Mon, 02 Jul 2001 18:31:12 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Prem-Rx: Sick HP-608F - resolution!

Thanks to all who contributed suggestions & encouragement. I am delighted to report the instrument is now functioning in a useable state, and I thought some might like to know what was discovered.

As is the case with many of these problems, the original owner had made an attempt to 'fix' the problems, and succeeded in botching the job. I inherited the 608 in non-working order, on condition that I could keep it if I could make it work. I, for my part, looked it over briefly, then set it aside in favour of more pressing matters. Before long it was forgotten. It languished for several years in a dark corner of the basement, left to gather dust and lose parts. These followed along, intermittently, but the exact whereabouts of some still remain unknown.

Initially I discovered two problems: No output on Band 'D', 95-210mhz, & inability to reliably control modulation & RF output levels.

Starting with the manual, I first found that the + 225 volt supply actually read + 325! That was the easy part. It seems that a 6AU6 regulator controller had been scavenged for a more important task elsewhere - the empty socket was immediately obvious. A replacement was found and the power supply outputs were checked & reset with a DVM.

The Band 'D' problem was the most intriguing. There was acceptable but slightly low oscillator output level as measured with a lash-up crystal probe at the uncalibrated oscillator output, but I was unable to peak the output amp. All buffer & amp voltages & resistances checked out. Very careful & repeated examination & cleaning of the bandswitch assembly on several occasions yielded no clues.

Now comes the tricky part. The manual referred to 'adjusting the shorted turn' on the relevant coils to perform the initial calibration. I could see nothing wrong here, and even disassembled the output amp coil form, leaving the coil undisturbed, to check the soldered connections with a mirror. Nothing amiss, & ohmmeter reading were just as expected. Looking at the parts on the floor (I often pick a free spot like the floor to get away from clutter), it dawned on me what the manual was saying. Fastened with a sliding fit over the coil form support was a silvered ring with a slotted end, and this was the shorted turn referred to in the manual. I had found it slid down inside the coil form almost out of sight. Could this be the problem?

I carefully reassembled the output coil, this time backing the ring most of the way out of the form. On checking, there was a hint of RF on the output meter at the fully open tuning condensor position.

But the best part was to come. On observing the oscillator assembly, I noticed for the first time that this coil had a similar slotted ring, also fully inserted into and completely covered by the oscillator coil. Better yet, there was a trace of (Glyptal?) cement a full inch away, indicating that perhaps this ring also had been given a new home. (This ring was very firmly in place and up until this time I had no idea that it might have been repositioned improperly.)

I lacked a proper frequency counter covering this range, so I pressed a Optoelectronics Scout40 into service as a counter. Sure enough, the counter indicated I was 5 mhz too low at 200 mhz indicated AFTER the ring was repositioned. I wish now I had taken a reading before moving anything.

Now the puzzle was clear. Someone had altered both these factory adjustments without any clear idea of what they did. By inserting the 'shorted turn' fully into the coils, they had reduced the inductance of the tuning coils so much that the amp could no longer track the oscillator. And for sure, the oscillator frequency would be way too high, and just barely functioning with the load of the shorted turn, hence the reduced uncalibrated output. Of course, now I realized that I could have saved a lot of time by checking with a counter first, but hindsight is always 20-20!

After some accurate realignment with the rings, it was obvious that the previous owner had run into trouble with the levelling circuit initially, and, unable to obtain normal operation on this one band, had just 'tried everything', compounding the problem in doing so! Q2, the RF indicator/ALC amp input stage, was found to be open and intermittent. It was replaced with a 2n3903, as was Q3, it's matched mate, so the balanced emitter follower circuit could be calibrated. This solved the levelling & modulation problems.

The only thing missing now is the small osc/buffer/pa shield cover, and I still have hopes that it might turn up someday. Even with it missing, with the unit in its case, shielding is good enough that I can measure down to 0.5uv without significant bleedthrough of unmodulated signal, so I deem the rescue effort a success. Time will tell. If anyone has a junk box with a spare 608 shield cover, think of me.

I offer this case study as a perfect example of the old story of the novice whose 'radio was broken', so he 'tightened up all the loose screws', only to find it didn't work even more after he had finished! The little masterpiece here was done by a 'qualified' technician, who has long since gone on to further his career, in I hope, another field of endeavour.

Thought you would get a chuckle.

Arthur Shulman

-----  
Date: Tue, 03 Jul 2001 00:16:11 -0400  
From: Michael Brown <piggin@mindspring.com>  
Subject: Re: Prem-Rx: Sick HP-608F - resolution!

A most enjoyable post! I never cease to be amazed at the horrors some techs install in equipment with an otherwise simple problem. These cases are always the hardest to troubleshoot and repair! I have seen twist-ties used as wire in a botched repair attempt on an old ac/dc tube set. Its sounds like you did a great job!

At 06:31 PM 7/2/01 -0400, you wrote:

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- > delighted to report the instrument is now functioning in a useable
- > state, and I thought some might like to know what was discovered.
  
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>

-----  
Date: Mon, 2 Jul 2001 23:24:52 -0700  
From: "Dennis Polito W6DEN" <cloudhopper@home.com>  
Subject: Prem-Rx: Manual needed for Harris RF 530/A receiver:

This is a multi-part message in MIME format.

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Content-Transfer-Encoding: quoted-printable

Hello to the list. Does anyone have this manual of a suggestion on where to obtain one for = copying?  
Harris wants double what I paid for this little receiver. She = is a little hard of hearing and I would  
like to tweak it up before I = give it to a friend. regards Dennis Polito

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Content-Transfer-Encoding: quoted-printable

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> < STRONG

> Hello to the = list.</STRONG

> < STRONG

> Does anyone have this manual of = a= 20 suggestion on where to obtain one for copying? Harris  
wants double what = I paid= 20 for this little receiver. She is a little hard of hearing and I would =  
like to= 20 tweak it up before I give it to a friend.</STRONG

> < STRONG

> regards</STRONG

> < STRONG

> Dennis= 20 Polito< /STRONG

>  
>

- -----= \_NextPart\_000\_0011\_01C1034E.32036420--

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Date: Tue, 3 Jul 2001 10:01:52 -0400  
From: "john hoopes" <jdhatti@hom.net  
Subject: Prem-Rx: RACAL woes

Greetings All:

I thought I would post a few words concerning what I found on my RACAL 6790 GM. First of all, I would like to thank everyone who responded to my enquiry about EPROMS to permit the 6790 to tune into the LF region. Now on to the story.

I have been actively involved in DXing the LF band for many years. "Dxing what?", you may ask. Well, most of you have probably heard of a group of renegades who "hang out" in the region of spectrum between 160 and 190 KHZ and who call themselves LOWFERS which stands for LOW Frequency Experimental Radio. This group of experimenters operates beacons under part 15 of the FCC rules which permits one watt of power (DC input) into a fifty foot antenna. Because these 50 foot antennas are so inefficient at LF(< 1%), ERP levels of less than 1mW are usually the norm. Needless to say, these weak signals make great targets for the LF DXer. Not only are you at odds with the ambient noise levels but countless other forms of man made and natural QRM will fight you for bandwidth (and sanity). As part of a properly equipped DX arsenal, I have always been on the lookout for the ultimate LF receiver and when I obtained the 6790, I was so impressed with it's performance on HF, that I began to wonder what the possibilities might be to convert this receiver to LF. I have heard that there were models of the 6790 that would tune below 500KHZ with a software change but that was all I knew. I discovered on the 6790 that the receiver's LO would tune below the 40455KHZ which was required to tune the receiver below the standard 500KHZ lower receive limit. By punching the direct entry keys with a frequency higher than 10MHZ, followed by the frequency of interest in KHZ, you could then re-enter "00" and be left with the frequency readout in KHZ as well as be tuned to that LF frequency. And it seemed that performance wasn't all that bad. How quaint, but I wanted VFO control!

OK, so along came my post asking for help and help I got. I was pointed in the direction of a fellow named Gary who was a RACAL "GURU" and was also part of the 6790 design team. It seemed I had hit pay dirt! I quickly sent an e-mail to this gentleman with my plight and eagerly awaited an answer. The answer wasn't exactly what I wanted or hoped for. Gary said that he had some "kits" that included a new 1st mixer, synthesizer and a second IF as well as an EPROM for a nominal fee. Since the asking price was a little beyond my budget (considering the receiver was free) I asked about obtaining only the EPROM. No problem Gary said and it was quite affordable. Now I'm in business. Meanwhile, I'm in correspondence with Frank Carcia and he was telling me about how some power supply ripple was causing AM modulation to his LO synthesizer on a RACAL receiver he owns (I don't remember the model but it was newer than the 6790) and that I should check mine. This seemed like a good idea and while I'm in there I can check the LO power level as well. What I discovered caused me much radio sorrow. The LO drive was healthy, no modulation noticed and very clean and stable with close to 1 watt of drive. What really caused me to go into shock was the fact that after I tuned below 1MHZ the LO drive gradually started to decrease. When I punched in a frequency of 185KHZ there was less than 0dBm available. Now I realized why Gary included so many "unnecessary items" with this simple mod. I mean all I needed was an EPROM right? WRONG!

In my mind just knew that if I changed the EPROM and replaced the 1st IF RF core with something having a higher permeability I would be in business. Now I know that it is not to be. I should be happy with the fact that I own such a fine receiver and that it performs well on MF and HF. I guess I'll have to dust off the R1401AG.

Thank you for letting me cyber vent.

Happy Independence Day to our American Brethren!

73 John/AB4MS

-----  
Date: Tue, 03 Jul 2001 08:43:38 -0600  
From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>  
Subject: Re: Prem-Rx: RACAL woes

> I have been actively involved in DXing the LF band for many years.... As part of a properly equipped DX

> arsenal, I have always been on the lookout for the ultimate LF receiver....

> receiver to LF.

Interesting post, John! I have two older receivers that I've used occasionally on LF, which seem to work extremely well, and wonder if other list users have experience with them. One is a National HRO-500 with the LF-10 preselector. The HRO isn't such a great receiver by modern standards (plenty of sensitivity and selectivity, but poor strong-signal capability), but the preselector is a dream on the LF frequencies, because of its narrow, tuned, front-end selectivity. The combo seems to work very well on the LF bands.

The second receiver is a Drake MSR-2 marine receiver, which also includes a very effective tuned LF preselector.

As a general comment, I prefer tuned preselectors for the LF bands, rather than bandpass filters.

Regards,

Jim Garland W8ZR/7 (soaking up the sun in the mountains of southern Montana)

-----  
Date: Tue, 3 Jul 2001 11:12:59 -0400  
From: "john hoopes" <jdhatti@hom.net>  
Subject: RE: Prem-Rx: RACAL woes

Hi Jim,

I haven't had the opportunity to use an LF receiver with a pre-selector but I imagine that it would perform very well with broad band antennas. My R1401 is very sensitive but suffers from IMD due to it's low pass and high gain pre-amp front end when I try to use a long wire. Fortunately, I do have a tuned loop which calms the IMD and makes it an effective receiver. Pre-selection is definitely a plus on LF.

John

-----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of James C. Garland Sent: Tuesday, July 03, 2001 10:44 AM  
To: Premium-Rx@kahuna.sdsu.edu

Subject: Re: Prem-Rx: RACAL woes

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Jim Garland W8ZR/7 (soaking up the sun in the mountains of southern Montana)

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Date: Tue, 3 Jul 2001 11:52:32 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: RACAL woes

Hi All, John, LO 40.455 MHz is frequency 0. That is the first IF frequency. The second mixer mixes 40.455 with 40 MHz to generate the second IF of 455 KHz. I cured the synthesizer side band problem with the linear power supply by adding a 8 volt regulator ahead of the synthesizer regulator. Just as I started chasing a couple digital glitches my spectrum analyzer died. The performance is much better at first check, but have much more testing to do. (RA6830) As you found Gary knows what you really need. You might want to try and build a home brew front end with a LO amplifier and front end. fc

> -----Original Message-----

> From: john hoopes [SMTP:jdhatti@hom.net]

> Sent: Tuesday, July 03, 2001 10:02 AM

> To: Premium-Rx@kahuna.sdsu.edu

> Subject: Prem-Rx: RACAL woes

> Greetings All:

> I thought I would post a few words concerning what I found on my RACAL  
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> GM. First of all, I would like to thank everyone who responded to my  
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> Happy Independence Day to our American Brethren!

> 73  
 > John/AB4MS

-----  
Date: Tue, 3 Jul 2001 12:17:13 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: RACAL woes

Hi All, I have a dead HP331 audio distortion analyzer with a nice 4 gang bread slicer. I have often considered building a tuned preselector with the nice tuning dial. You guys at the bottom of the band might consider something like that to tune out some of the crud. fc

> -----Original Message-----  
> From: john hoopes [SMTP:jdhatti@hom.net]  
> Sent: Tuesday, July 03, 2001 11:13 AM  
> To: 'James C. Garland'  
> Cc: Premium-Rx@kahuna.sdsu.edu  
> Subject: RE: Prem-Rx: RACAL woes  
> Hi Jim,

> I haven't had the opportunity to use an LF receiver with a pre-selector  
> but  
> I imagine that it would perform very well with broad band antennas. My  
> R1401  
> is very sensitive but suffers from IMD due to it's low pass and high gain  
> pre-amp front end when I try to use a long wire. Fortunately, I do have a  
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> Pre-selection is definitely a plus on LF.

> John

> -----Original Message-----  
> From: owner-premium-rx@kahuna.sdsu.edu  
> [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of James C. Garland  
> Sent: Tuesday, July 03, 2001 10:44 AM  
> To: Premium-Rx@kahuna.sdsu.edu  
> Subject: Re: Prem-Rx: RACAL woes  
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> > I have been actively involved in DXing the LF band for many years.... As  
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Date: Tue, 3 Jul 2001 12:35:54 -0400  
From: "john hoopes" <jdhatti@hom.net>  
Subject: RE: Prem-Rx: RACAL woes

Oooops. You're right Frank. I tell you, it's those darn solder fumes. It'll make say things you don't mean and make you mean things you don't say.

Glad you got rid of noise Frank. I checked mine and I couldn't detect any ripple on the DC lines or and sidebands on the LO. I did notice that LO power dropped the longer it was powered up (checking it on the heat sink of the driver pair). Power out of the synth remained constant for the duration the unit was on. I'm not sure without checking the manual, but I believe there is a bias adjust for the finals on the A2 board. Tweaking of the pot had a definite influence on the amplitude of the waveform. Now I'm a little concerned because the drivers seem to run extremely hot. Can't keep my fingers on them for more than a few seconds before I leave skin. Both of my RACALS are like this so assume it is normal. Has anyone ever mentioned this before that you know of?

John -----Original Message-----

From: Carcia, Frank A. HS [mailto:francis.carcia@hs.utc.com] Sent: Tuesday, July 03, 2001 11:53 AM  
To: 'john hoopes'; Premium-Rx@kahuna.sdsu.edu  
Subject: RE: Prem-Rx: RACAL woes

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> From: john hoopes [SMTP:jdhatti@hom.net]  
> Sent: Tuesday, July 03, 2001 10:02 AM  
> To: Premium-Rx@kahuna.sdsu.edu  
> Subject: Prem-Rx: RACAL woes  
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- > 73
- > John/AB4MS

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 Date: Tue, 3 Jul 2001 13:05:41 -0400  
 From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
 Subject: RE: Prem-Rx: RACAL woes

Hi, That pot is only for adjusting the final bias for best IMD performance. Use great care in that tweek. The 6830 LO amplifier is inside a shielded module that also gets pretty warm. The driver transistor is heat sunk to the case but the finals have the same heat sink as the 6790. fc

> -----Original Message-----

- > From: john hoopes [SMTP:jdhatti@hom.net]
- > Sent: Tuesday, July 03, 2001 12:36 PM
- > To: 'Carcia, Frank A. HS'; Premium-Rx@kahuna.sdsu.edu
- > Subject: RE: Prem-Rx: RACAL woes
- > Oooops. You're right Frank. I tell you, it's those darn solder fumes.
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> > core with something having a higher permeability I would be in business.  
> > Now  
> > I know that it is not to be. I should be happy with the fact that I own  
> > such  
> > a fine receiver and that it performs well on MF and HF. I guess I'll  
> have  
> > to  
> > dust off the R1401AG.  
> >  
> > Thank you for letting me cyber vent.  
> >  
> > Happy Independence Day to our American Brethren!  
> >  
> > 73  
> > John/AB4MS

---

premium-rx-digest Thursday, July 5 2001 Volume 01 : Number 137

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Date: Tue, 3 Jul 2001 13:36:00 -0400  
From: "john hoopes" <jdhatti@hom.net>  
Subject: Prem-Rx: Additional RACAL 6790 info

Hi All:

John Reed passed along some interesting information concerning the LF mods to the 6790. Those of you with 6790s who expressed interest in this particular mod might find this interesting.

"This loss of the LO signal is caused by a four section elliptical filter on the first mixer board in the LO circuit. You can realign the four coils that are in this filter, but you'll need a spectrum analyzer and tracking generator to do it correctly. There are some other changes to the first mixer board, synthesizer and IF boards in the LF option that Racal sells for the RA6793A, but changing the filter will help a lot. You may however end up with more noise at LF due to phase noise from the LO at zero frequency slipping through. Racal does some other things to attenuate this."

It seems I might have missed the obvious but I have never been one to refuse a helping hand. I will be the first to admit that I am by far an expert at this. I know just enough to hurt myself. So armed with that bit of information, I will perform a few more tests. One will be to terminate the LO synth into a 50 ohm load and check it's response throughout it's frequency range.

Regards, John

---

Date: Tue, 3 Jul 2001 19:22:24 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: actually a non-premium rx question...

Dear Spencer, Thanks for the query about the Icom PCR-1000 receiver. I looked back at my review notes and find that I didn't actually take any intermodulation measurements because I believed (wrongly) that this was another VHF/UHF "Scanner" with an apologetic attempts to provide HF coverage without real performance being involved. As a device I liked it a lot, with easy to use



software and remarkable freedom from internally generated spurious signals checked in an RF anechoic room). I also found that the signal strength metering was exceedingly linear across the whole tuning range which led me to recommend the PCR-1000 to the EMC community as a pre-compliance test receiver. In this form we have demonstrated its use in our lecture program at Exeter University and lots of companies are now using it for their first "look-see" testing for radiated and conducted emissions. My friends at Icom did provide me with some circuit detail and the front end looks quite well configured, with the VHF/UHF ranges being split up with separate RF amplifiers and electronically track tuned filters for bands of: 50-150MHz, 150-350MHz, 350-700, and 700-1300MHz. Below 50MHz the same technique is used with bands of 30-50MHz, 15-30, 1.8-15MHz and a low pass filter for frequencies below 1.8MHz. The first mixer is a uPC 2721 which I don't immediately recognise, but no doubt data is available on the Web, with a first IF of 266.7MHz with a 3MHz wide roofing filter. It all looks quite satisfactory, but I will have to recover the PCR-1000 from the University if I am to do any measurements on it. Certainly, in use I find the receiver to be excellent, and if you download the software available at [www.mahy.co.uk](http://www.mahy.co.uk) you will find that you can use the PCR-1000 as a very good spectrum analyser with signal strength calibrated in dBm. The software is currently free, which is a real bonus. Of course you will need to buy the PCR-1000 in Europe in order to get round the cellular prohibition in the US market, but that shouldn't be a problem. For its price, the PCR-1000 is a fantastic bargain, and I really ought to buy one for myself instead of borrowing the one we bought for the University. Is this a recommendation?? It certainly looks like it.

73 John Wilson

- -----Original Message-----

From: Spencer Bahner [mailto:spencer12345@email.msn.com] Sent: 03 July 2001 08:17  
To: [johnwilson@freezone.co.uk](mailto:johnwilson@freezone.co.uk)

Subject: Re: Prem-Rx: actually a non-premium rx question...

John,

As I recall you did a review of the Icom PCR1000 ages ago ( I try and pick up a copy of SWM at a somewhat distant newstand) and rather liked the unit. I was sure I saved the review but cannot find it anywhere! That being the case, I wonder if you recall what the measured IMD values were? I realise of course that this is not a high-dynamic range receiver but felt an urge to buy one if it would work well enough at VHF-UHF where I do most of my listening. I am in an urban area and require something better than low end gear and wondered how effective the filters were on the PCR front end. Your thoughts would be greatly appreciated.

Thanks!

Spencer Bahner Seattle, Washington

-----  
Date: Tue, 03 Jul 2001 12:31:14 -0600  
From: Rob & Terri Sherwood <[rob@sherweng.com](mailto:rob@sherweng.com)>  
Subject: Prem-Rx: Johnson KW Matchbox

This is ham radio question, but hopefully there are a few hams in the group into boat anchor equipment. The matchbox has been packed away for 10 years, and is now ready to be put into service with some new overgrown twinlead from Cablexperts. They call it ladder line, which it isn't, but close enough and easier to deal with than the true ladder line I used as a 15 year old ham in 1962.

I have not yet located the manual, assuming I ever had one, and while I generally remember the circuit with one dual balanced tuning capacitor and one dual differential tuning capacitor, it would be nice to see the complete schematic. This is along way of asking if anyone has a owners manual for a Johnson KW Matchbox, and if so, could I pay to have it copied.

-----

Date: Tue, 3 Jul 2001 14:51:44 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Johnson KW Matchbox

Hi Rob, I have one somewhere in the basement junk yard. It is only a couple pages and page or so for the directional coupler. I'll look and get back to you. I still use the Johnson 4 inch spreaders with #10 to the 160 meter dipole. I upgraded the tuner to a home brew to cover that band. Your memory of the circuit configuration is correct. I think there some options in the manual to be aware of. The new line is easier to use but won't last as long. I'm on my second set of wire since I purchased the spreaders as a 15 year old in '66. The present run was installed in '83 and hanging in there.  
fc

> -----Original Message-----

> From: Rob & Terri Sherwood [SMTP:rob@sherweng.com]  
> Sent: Tuesday, July 03, 2001 2:31 PM  
> To: Premium, RX; Burnett, Greg; Inrad; KC1SX, Tracy, Michael,; Nace,  
> Roger & Kathleen; Pasley, Don; Zantow, Dave; Zeller, George  
> Subject: Prem-Rx: Johnson KW Matchbox  
> This is ham radio question, but hopefully there are a few hams in the  
> group into boat anchor equipment. The matchbox has been packed away for  
> 10 years, and is now ready to be put into service with some new  
> overgrown twinlead from Cablexperts. They call it ladder line, which it  
> isn't, but close enough and easier to deal with than the true ladder  
> line I used as a 15 year old ham in 1962.

> I have not yet located the manual, assuming I ever had one, and while I  
> generally remember the circuit with one dual balanced tuning capacitor  
> and one dual differential tuning capacitor, it would be nice to see the  
> complete schematic. This is along way of asking if anyone has a owners  
> manual for a Johnson KW Matchbox, and if so, could I pay to have it  
> copied.

-----  
Date: Tue, 3 Jul 2001 13:51:04 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Scott McDonald

Gentlemen, Scott McDonald is our newest member-

Scott checks in from the western suburbs of Chicago. By day he is a corporate attorney dealing with intellectual property, but by night and weekends . . . he enjoys operating his RA 6790/GM (recent acquisition).

Scott started his premium radio career with a Drake MSR2, a receiver he enjoyed for over 10 years. Like many of our members he has owned a good share of hardware over the years, both restoring as well as operating same. Presently, he has reduced the time he spends on receiver restoration and repair and increased the time he enjoys "sitting back and listening . . . to a great radio".

Our newest member learned about our List while surfing the Web. Scott can be reached at  
KA9P@AOL.COM

Counsel, welcome to the List, I hope some of our members living near the Windy City will drop you an e-mail?

Greg

-----  
Date: Tue, 3 Jul 2001 15:41:16 -0700

From: "Greg Bailey" <gbailey@mail.sdsu.edu  
Subject: Prem-Rx: New Member: Les Locklear

Gentlemen:

Les Locklear has joined our List.

I have to apologize to Les, he has waited a long time to be introduced as well as added to our server. In fact, according to my e-mail calendar, it has been the better part of two months. Things in this office get a little crazy around final examination and commencement time, and I simply dropped the ball.

Our newest member lives in Gulfport, Mississippi and works as a Controls Technician for the U.S. Government. He has enjoyed operating and restoring receivers all his life. This includes (are you sitting down Rippel???) 1 R-390; 33 R-390A's; and 18 SP-600's. He has authored articles in Electric Radio, Hollow State Newsletter, The Collins Journal, as well as others. Les is a contributor to List member Fred Osterman's "Receivers Past and Present" 3rd Edition. The topic of his contribution was the variants of the Hammarlund SP-600 series.

Presently, Les is "thinning out his BA collection" as mandated by his "lower back" problems (Ed. note: I can't imagine picking up 33 R-390A's in one lifetime). He presently is working at Keesler A.F.B and will be retiring in the new future.

Drop Les an e-mail at: Llgt@aol.com

Greg

-----  
Date: Tue, 03 Jul 2001 21:38:17 -0700  
From: Al Klase <skywaves@bw.webex.net  
Subject: Re: Prem-Rx: Johnson KW Matchbox

Rob,

This and a lot of other useful documents are available electronically in the Boat-Anchor Manual Archive (BAMA) at <http://bama.sbc.edu/>

Regards, Al

Rob & Terri Sherwood wrote:

> .....  
> I have not yet located the manual, assuming I ever had one, and while I  
> generally remember the circuit with one dual balanced tuning capacitor  
> and one dual differential tuning capacitor, it would be nice to see the  
> complete schematic.....  
- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

-----  
Date: Wed, 4 Jul 2001 01:04:29 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com  
Subject: Prem-Rx: Extraordinary mixer

Hello All--

Today I saw a "vintage Camfield mixer...extraordinary" listed on ePay (item 1162756176) while searching for "receivers  
> ham radio" so naturally I checked it out...and found a kitchen food mixer! I emailed the seller, gently remonstrating with him for "category violation" and wasting our valuable time. Tonight I received this thoughtful reply from him:

> Dear Howard:  
 > If you are a radio person, you have probley heard of the mixer section of a  
 > radio.  
 > .....  
 > The mixer section of the radio takes the incoming frequency and beats  
 > it with the local oscillator to produce the intermediate frequency.  
 > .....  
 > **RADIOS WILL NOT WORK WITHOUT A MIXER**  
 > .....  
 > I thought my mixer might be useful in this respect.  
 > Bob  
 I'm thinking of establishing a premium receiver/culinary pursuits newsgroup. Any interest out there  
 (in addition to Bob, of course)?  
 --howard n7exn

-----  
 Date: Wed, 04 Jul 2001 00:36:30 -0500  
 From: Edward Greeley <etgreeley@worldnet.att.net>  
 Subject: Prem-Rx: Re: [GreenKeys] Extraordinary mixer

Deer Mr ritter

I don no wy sum of yu people haf to alwayz be critsizin thuh nice fokz witch put valuble stuf up on that  
 ebay place. Jeez, i bet his mixer wud not only make grate margaritas but wud also do a marvlus job on  
 biskuts to. an wen its not doin all that i bet it wud mix them frequentcys so gud that yu wudnt hav no  
 problums wit imags or nuthin. so Pleez leeve him a lone.

thank yu fur reedin

Howard L Ritter, Jr wrote:

> Hello All--

> Today I saw a "vintage Camfield mixer...extraordinary" listed on ePay (item  
 > 1162756176) while searching for "receivers  
 > ham radio" so naturally I checked  
 > it out...and found a kitchen food mixer! I emailed the seller, gently  
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 > > The mixer section of the radio takes the incoming frequency and beats  
 > > it with the local oscillator to produce the intermediate frequency.  
 > > .....  
 > > .  
 > > **RADIOS WILL NOT WORK WITHOUT A MIXER**  
 > > .....  
 > > .  
 > > I thought my mixer might be useful in this respect.  
 > > Bob

- > I'm thinking of establishing a premium receiver/culinary pursuits newsgroup.
- > Any interest out there (in addition to Bob, of course)?

> --howard n7exn

-----  
Date: Wed, 4 Jul 2001 07:35:15 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: RE: PRC-1000 as spec anz

Terry (and all),

I goofed on the web address for the PCR-1000. The correct address is: [www.mahy.demon.co.uk](http://www.mahy.demon.co.uk) I forgot the "demon" bit, but I've just checked the address and it works ok from here. John Wilson

- -----Original Message-----

From: Terry O'Laughlin [mailto:terryo@wort-fm.terracom.net] Sent: 03 July 2001 22:48  
To: johnwilson@freezone.co.uk

Subject: PRC-1000 as spec anz

- > I am to do any measurements on it. Certainly, in use I find the receiver to
  - > be excellent, and if you download the software available at [www.mahy.co.uk](http://www.mahy.co.uk)
  - > you will find that you can use the PCR-1000 as a very good spectrum analyser
  - > with signal strength calibrated in dBm. The software is currently free,
- The link to mahy seems to be under construction. I'd love to get that software.

Terry O'Laughlin

-----  
Date: Wed, 4 Jul 2001 05:49:47 -0700  
From: "Bill Turner" <w7ti@dslextreme.com>  
Subject: Prem-Rx: Re: [MilSurplus] Extraordinary mixer

That's so funny, I don't know whether to laugh or cry.

73, Bill W7TI

---

- ----- Original Message -----

From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
To: "Lee" <leeb@islc.net>  
> ; "Bob Camp" <bob@cq.nu>  
> ; "john hart" <wa2hwj@worldnet.att.net>  
> Cc: <greenkeys@qth.net>  
> ; <milsurplus@qth.net>  
> ; <digitalradio@qth.net>  
> ; <premium-rx@kahuna.sdsu.edu>  
> Sent: Tuesday, July 03, 2001 10:04 PM  
Subject: [MilSurplus] Extraordinary mixer  
> Hello All--

- > Today I saw a "vintage Camfield mixer...extraordinary" listed on ePay (item
- > 1162756176) while searching for "receivers
- > ham radio" so naturally I checked
- > it out...and found a kitchen food mixer! I emailed the seller, gently
- > remonstrating with him for "category violation" and wasting our valuable
- > time. Tonight I received this thoughtful reply from him:

> > Dear Howard:  
> > If you are a radio person, you have probably heard of the mixer section of a  
> > radio.

> .....  
> .  
> > The mixer section of the radio takes the incoming frequency and beats  
> > it with the local oscillator to produce the intermediate frequency.

> .....  
> .  
> > RADIOS WILL NOT WORK WITHOUT A MIXER

> .....  
> .  
> > I thought my mixer might be useful in this respect.  
> > Bob

>  
> I'm thinking of establishing a premium receiver/culinary pursuits newsgroup.  
> Any interest out there (in addition to Bob, of course)?

> --howard n7exn

>  
> ---  
> Submissions milsurplus@qth.net

-----  
Date: Wed, 4 Jul 2001 09:19:02 -0600  
From: "Rob Sherwood" <rob@sherweng.com>  
Subject: Prem-Rx: KW Matchbox

This is a multi-part message in MIME format.

- -----=\_NextPart\_000\_0009\_01C1046A.5DA4A400 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

Many thanks to all the members who responded with info on my boat anchor = tuner. Last night while using it for the first time (with a temporary = 300 ohm twinlead feedline), I was amused by how it was dwarfing the = IC-751 and IC-R70 sitting beside it. My Metron portable linear will be = hooked up to it in a couple days, and the matchbox will still be larger = than all the other equipment put together. Now this is true Boat Anchor = style. I was astounded at how many hams I talked to in the last 24 = hours who were running open wire line. Good Karma I guess. Maybe there = is hope for the hobby after all. = 20

- -----=\_NextPart\_000\_0009\_01C1046A.5DA4A400 Content-Type: text/html; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

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> < STYLE

```
> </STYLE
> </HEAD
> <BODY bgColor= 3D#ffffff
> Many thanks to all the members who = responded with= 20 info on my boat anchor tuner. Last
night while using it for the = first time= 20 (with a temporary 300 ohm twinlead feedline), I was
amused by how it was =
dwarfing the IC-751 and IC-R70 sitting beside it. My Metron = portable= 20 linear will be hooked up
to it in a couple days,= 20 and the matchbox will still be larger than all the other= 20 equipment put
together. Now this is true Boat Anchor style. = I was= 20 astounded at how many hams I talked to in
the last 24 hours who = were= 20 running open wire line. Good Karma I guess. Maybe there is =
hope for= 20 the hobby after all. =
>
>
```

- -----= \_NextPart\_000\_0009\_01C1046A.5DA4A400--

-----  
Date: Wed, 4 Jul 2001 11:35:26 -0700  
From: "Dennis Polito W6DEN" <cloudhopper@home.com>  
Subject: Prem-Rx: multicoupler scematic needed

This is a multi-part message in MIME format.

- -----= \_NextPart\_000\_0058\_01C1047D.6B8FE4E0 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

Happy 4th to all!

In my never ending quest to gather as much documentation as possible to = keep this old equipment running I am looking for the manual for the = following:

HF Multicoupler type RG-8103, s/n 64. Made by The RF Grimm Co. = Gaithersburg MD. This unit appears to function from LF through HF. It = has 18 outputs and is similar in appearance to Watkins Johnson = equipment. It is rack mounted and 3 1/2" high.= 20

This multicoupler has been a mainstay here in the shack and I would like = to be armed with sufficient documentation should it ever decide to go to = sleep on me.

regards Dennis

- -----= \_NextPart\_000\_0058\_01C1047D.6B8FE4E0 Content-Type: text/html; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

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>

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> <META content= 3D"MSHTML 5.00.2614.3500" name= 3DGENERATOR

> <STYLE

> </STYLE

> </HEAD

> <BODY bgColor= 3D#ffffff

> <STRONG

> Happy 4th to = all!</STRONG

> <STRONG

> In my never ending quest to = gather as much= 20 documentation as possible to keep this old equipment running I am = looking for= 20 the manual for the following:</STRONG

> <STRONG

> HF Multicoupler type RG-8103, = s/n 64. Made= 20 by The RF Grimm Co. Gaithersburg MD. This unit appears to function = from LF= 20 through HF. It has 18 outputs and is similar in appearance to Watkins = Johnson= 20 equipment. It is rack mounted and 3 1/2" high. </STRONG  
> < STRONG  
> This multicoupler has been a = mainstay here= 20 in the shack and I would like to be armed with sufficient documentation = should= 20 it ever decide to go to sleep on me.</STRONG  
> < STRONG  
> regards</STRONG  
> < FONT face= 3DArial = size= 3D2  
> < STRONG  
> Dennis</STRONG  
>  
>

- -----= \_NextPart\_000\_0058\_01C1047D.6B8FE4E0--

-----  
Date: Wed, 04 Jul 2001 15:12:44 -0700  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Re: Prem-Rx: multicoupler scematic needed

- - - - - = \_1275073= = \_ .ALT Content-Type: text/plain;  
charset= "us-ascii"; format= flowed

At 11:35 AM 7/4/2001 -0700, Dennis Polito W6DEN wrote:

> HF Multicoupler type RG-8103, s/n 64. Made by The RF Grimm Co.  
> Gaithersburg MD. This unit appears to function from LF through HF. It has  
> 18 outputs and is similar in appearance to Watkins Johnson equipment. It  
> is rack mounted and 3 1/2" high.

Ralph Grimm was one of three engineers who left Nems-Clarke to start a surveillance receiver company called Communications Electronics, Inc. in 1966. (The other two were Peter Powell and Tracy Esterbrook.) Watkins-Johnson purchased CEI in the late 70s. The resemblance is not a coincidence.

Ralph Grimm also founded Regco which produced a few items before being swallowed up by Racal.

Best, Terry O'Laughlin

- - - - - = \_1275073= = \_ .ALT Content-Type: text/html;  
charset= "us-ascii"

> At 11:35 AM 7/4/2001 -0700, Dennis Polito W6DEN wrote:

>  
>  
> < b  
> HF Multicoupler type RG-8103, s/n 64. Made by The RF Grimm Co. Gaithersburg MD. This unit appears to function from LF through HF. It has 18 outputs and is similar in appearance to Watkins Johnson equipment. It is rack mounted and 3 1/2 high. </b

>  
>  
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>



> Ralph Grimm also founded Regco which produced a few items before being swallowed up by Racal.  
>  
> Best,  
> Terry O'Laughlin  
>

- - - - -\_1275073= =\_.ALT--

-----  
Date: Thu, 5 Jul 2001 08:33:17 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Johnson KW Matchbox

Hi All, I have it and will try to scan it and post. It is 30 years old so a bit ragged. fc

> -----Original Message-----

> From: Al Klase [SMTP:skywaves@bw.webex.net]  
> Sent: Wednesday, July 04, 2001 12:38 AM  
> To: Rob & Terri Sherwood  
> Cc: Premium, RX; Burnett, Greg; Inrad; KC1SX, Tracy, Michael,; Nace,  
> Roger & Kathleen; Pasley, Don; Zantow, Dave; Zeller, George  
> Subject: Re: Prem-Rx: Johnson KW Matchbox  
> Rob,

> This and a lot of other useful documents are available  
> electronically in the Boat-Anchor Manual Archive (BAMA) at  
> <http://bama.sbc.edu/>

> Regards,  
> Al

> Rob & Terri Sherwood wrote:

> > .....  
> > I have not yet located the manual, assuming I ever had one, and while I  
> > generally remember the circuit with one dual balanced tuning capacitor  
> > and one dual differential tuning capacitor, it would be nice to see the  
> > complete schematic.....

> --  
> Al Klase - N3FRQ  
> skywaves@bw.webex.net  
> Flemington, NJ 08822  
> Web Page: <http://www.webex.net/~skywaves/home.htm>

-----  
Date: Thu, 05 Jul 2001 07:40:38 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: Antenna Pattern

Who out there remembers for sure (or can find their antenna books) what the pattern of the following wire antenna is:

192 foot flat top, center fed with open wire or twin lead on 40 meters. Wavelength would be three half waves, fed at a current node. No phasing lines, so it is not 3 half waves in phase.

What I am trying to accomplish is rotate the pattern, possibly with a 4-leaf clover or 6-leaf clover. Presently the 128 foot antenna is 2 half waves in phase, broadside SE / NW. Of course the 2 half waves in phase modestly compresses the dipole pattern, giving about 2 dB gain over a dipole. It works well into the Pacific NW, and Louisiana, but if I wanted to optimize the pattern straight East / West, would adding the additional 64 feet break the present figure-of-eight pattern into multiple leaf clovers, putting more signal East/West and North/South, at the expense of signal in the present broadside direction?

If memory serves me, an end fed full wave gives a four-leaf clover pattern. I have never been a fan of end-fire unbalanced antennas, so I don't want to go that route. There is no ground system at the cabin, which is mostly sitting on solid rock.

-----  
Date: Thu, 5 Jul 2001 10:09:57 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: FW: [Fwd: [AMRadio] Receive VLF on your computer]

This message is in MIME format. Since your mail reader does not understand this format, some or all of this message may not be legible.

- -----\_ = \_NextPart\_000\_01C1055C.2BCB5300 Content-Type: text/plain

Hi All, I received this from a friend. My RA6830 has a 6.4 KHz. base band output and this program gives me ideas for a spectrum monitor. fc

> -----Original Message-----

> From: Larry Szendrei [SMTP:ne1s@netzero.net]

> Sent: Wednesday, July 04, 2001 7:09 PM

> To: Frank Carcia; bbmottes@snet.net

> Subject: [Fwd: [AMRadio] Receive VLF on your computer]

> Bill, Frank:

> I'm forwarding you guys an Email about using the soundcard in the  
> 'pooter for VLF reception. I tried it this morning and "saw" signals at  
> 900Hz, 4.3 KHz, 7.3 KHz, 12.1 KHz, 13.4 KHz, 18.9KHz, 20.1KHz, and  
> 21.9KHz (all +/- 1KHz). I have no idea what these are - local "birdies"  
> or real VLF stations.

> 73,

> -Laryr/NE1S

> --

> Visit my web page at <http://www.qsl.net/ne1s>

> << [AMRadio] Receive VLF on your computer

>

- -----\_ = \_NextPart\_000\_01C1055C.2BCB5300 Content-Type: message/rfc822 Content-Description: [AMRadio] Receive VLF on your computer

Message-ID: <LOBBJHOLOOHLIPLONIAFAEEDECAA.sieb@sympatico.ca>

From: Ed Sieb <sieb@sympatico.ca>

To: BoatAnchors <boatanchors@sco.theporch.com>

> , Glowbugs <glowbugs@piobaire.mines.uidaho.edu>

> , AM Reflector <AMRadio@listbot.com>

Subject: [AMRadio] Receive VLF on your computer Date: Wed, 27 Jun 2001 23:21:02 -0400 X-Message-Flag: Forward MI ME-Version: 1.0 X-Mailer: Internet Mail Service (5.5.2653.19) Content-Type: text/plain; charset="iso-8859-1"

AM Amateur Radio Reflector - <http://www.AMfone.net>

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Receive VLF on your computer

What do you think of the idea of sticking a wire into the sound card of your computer and receiving LF radio signals? Well, the idea isn't as fanciful as you might think, with European listeners reporting exciting results.

DL8AAM forwarded an item from Trond Jacobsen to the amateur packet radio network. The following is a summary of Trond's note. It was written to alert LF listeners of annual test transmissions from Swedish station SAQ on 17.2 kHz.

Here is the item:

If you don't have a VLF receiver and would like to log this special event, don't despair. As the frequency of operation of this VLF transmitter, 17.2 kHz, is within the "audio range" it is easier than you think.

First of all you must have a soundcard installed in your computer. Then you need some spectrum analysis software, to record and view the radio signal from SAQ.

For this task you have a selection of several free programs, available for download. One of the most used is GRAM (and Spectran). A quick search on the web will give you several choices of URL's for download of the programs.

Install the software. Read the instructions. Now you have a very simple yet sensitive VLF receiver in your computer. Open up and run your soundcard software. Choose mic input, experiment later with the gain boost select. Open up and run the analysis tool you selected to download and install.

If you use one of the GRAM versions ( the newest version of GRAM has time- limited operation before registration, but there are other versions still available on the web. These include the much proffered "radio version" GRAM 4 2 6 5 and GRAM 5 )

Go to the file menu: select Scan Input or use (F3), at the Scan Input menu, first you go to the Sample Characteristics and select: 44 kHz sample rate, then go to Display Characteristics and select: Display type / Scroll, Scale dB 90, Palette / CB, Scroll Mem / On, Time Scale (msec) / 10 then you go to Frequency Analysis and select: Freq Scal / Linear, FFT Size (Points) 1024, keep the Freq Resolution (Hz) at 43.1, Band (Hz) move with left mouse button to read 11020 - 22045 (which is your frequency in Hertz), Spectrum average / 1, Pitch Detector / Off.

If you would like to save the transmission direct to your HD select: Recording enable / On then press OK.

Now you have GRAM up and running, giving you a visual display of a part of the LF band from 11.020 kHz to 22.045 kHz, but as the input is unconnected, you should see nothing but some internal noise from the soundcard. No is the time of truth, - take the coax from your ordinary HF antenna, preferably an vertical antenna or any kind of "longwire" construction, and hook up the antenna via a suitable adaptor to the mic- input of your soundcard.

Listeners in Europe and US east coast will see spectral lines from FSK transmissions at 16 kHz (GBR in UK ) 16.4 ( JXN, NATO COMSUBLANT in Norway 18.1 ( RDL CIS MIL at hh:28-38-48-58 with Morse "EAM's" / Strategic Code Messages in between) 18.3 (HWU French Navy ) and 20.9 ( also HWU ).

In other countries there will be other stations like NWC (North West Cape) in Australia at 19.8 kHz and 3SB in China at 0.6 kHz. Also more sporadic ICV NATO at 20.27 kHz from Tavolara in Italia. And you will "receive" a lot of atmospheric. If you are quiet radio location you will also hear other natural radio phenomena. And of course the 15.625 kHz line oscillator from TV sets should be audible.

If you are suffering from strong electrostatic fields blanking the input, try a capacitor in series with the antenna lead. If you are suffering interference or intermeditation from strong or nearby BC stations, try an inductor in series with the antenna lead (try values up to 10 mH!).

Remember that antennas might pick up VERY HIGH VOLTAGES, capable of killing both you and your electronic equipment, during all stages of a thunderstorm, so take precautions to protect yourself, your computer and soundcard interface.

To get to know this method of VLF reception, I suggest you play around with the settings on both your analysis tool and your soundcard, to get the most out of this simple, yet effective VLF receiver.

Right now I have one of these "receivers" up and running with an 8 metre vertical 8 metres above the roof. On the GRAM display is the weak, but visible spectral lines from NWC at Exmouth in Australia, 12700 km away.

VLF radio signals follow the earth - ionosphere waveguide and are not limited by the "normal" propagation conditions. So propagation is nothing like that experience on HF.

That was a note from Trond Jacobsen, a low frequency experimenter from Norway. If you would like to listen for SAQ, the tests will go to air on July 1. The frequency is 17.2 kHz and the mode is CW (A1A). There will be four transmissions, starting at 0830, 0845, 1230 and 1245 UTC.

Contact: [trond.jacobsen@halden.net](mailto:trond.jacobsen@halden.net)

(Thanks to DL8AAM via APC News)

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To

unsubscribe, write to [AMRadio-unsubscribe@listbot.com](mailto:AMRadio-unsubscribe@listbot.com)

- -----\_=\_NextPart\_000\_01C1055C.2BCB5300--

Date: Thu, 5 Jul 2001 10:51:37 -0400  
From: "Carcia, Frank A. HS" <[francis.carcia@hs.utc.com](mailto:francis.carcia@hs.utc.com)>  
Subject: RE: Prem-Rx: Re: [MilSurplus] Extraordinary mixer

Hi, Yesterday I made a batch of meat balls with the kids. (I freeze sauce and had the urge for soul food.) We mix ours by hand. You get better dynamic range with an electric but it would have increased the mess my wife got to clean up after us. (while I hid in the basement repairing the spectrum analyzer)

Real Business: My RA6830 with a linear power supply had synthesizer 120 Hz side bands due to ripple on the 8 volt supply. The voltage was actually around 11 volts. Also the front panel 5 volt regulator ran pretty hot with the high voltage. The switcher supply regulates this voltage so the noise is much higher frequency. I mounted a 3 terminal regulator on the side wall of the chassis just behind the RF gain pot and set the voltage around 8 volts The regulator reduced the ripple from 300 millivolts to less than 5. The synthesizer 120 Hz sidebands were - 45 dBC, now gone. I now see some stuff at 10 KHz at - 70 dBC and some close in stuff at around - 70 dBC. The difference is impressive. I also rerouted the power supply outputs (+ 20, 8 V) with two shielded cables to the other side of the chassis away from the 120 VAC cable to the power switch. I ran them in the area between the mother board mounting posts and chassis side wall. The regulator was mounted with 1 4-40 screw with a ground lug. I put a .1 UF bypass on input and output. Also to really make things quiet I put a 330 UF/25v cap across the input. I drilled one hole in the side wall a half inch forward of the side cable shield screws and the height was half way between the middle

and top side shield pem nuts. The front panel regulator and the Synthesizer both share this 8 volt regulator. I'm thinking that my next trick will be to add a second 8 volt regulator in the synthesizer area to isolate the digital even more. This will require a trace to be cut for the isolation. fc

> -----Original Message-----  
> From: Bill Turner [SMTP:w7ti@dslextreme.com]  
> Sent: Wednesday, July 04, 2001 8:50 AM  
> To: Howard L Ritter, Jr; Lee; Bob Camp; john hart  
> Cc: greenkeys@qth.net; milsurplus@qth.net; digitalradio@qth.net;  
> premium-rx@kahuna.sdsu.edu  
> Subject: Prem-Rx: Re: [MilSurplus] Extraordinary mixer  
> That's so funny, I don't know whether to laugh or cry.

> 73, Bill W7TI

> \_\_\_\_\_

>  
> ----- Original Message -----  
> From: "Howard L Ritter, Jr" <hlritter@mindspring.com  
> To: "Lee" <leeb@islc.net  
> ; "Bob Camp" <bob@cq.nu  
> ; "john hart"  
> <wa2hwj@worldnet.att.net

> Cc: <greenkeys@qth.net  
> ; <milsurplus@qth.net  
> ; <digitalradio@qth.net  
> ;  
> <premium-rx@kahuna.sdsu.edu

> Sent: Tuesday, July 03, 2001 10:04 PM  
> Subject: [MilSurplus] Extraordinary mixer

>  
> > Hello All--  
> >  
> > Today I saw a "vintage Camfield mixer...extraordinary" listed on  
> ePay (item  
> > 1162756176) while searching for "receivers  
> ham radio" so naturally I  
> checked  
> > it out...and found a kitchen food mixer! I emailed the seller,  
> gently  
> > remonstrating with him for "category violation" and wasting our  
> valuable  
> > time. Tonight I received this thoughtful reply from him:  
> >  
> > > Dear Howard:  
> > > If you are a radio person, you have probley heard of the mixer  
> section of a  
> > > radio.  
> > >  
> > .....  
> .....  
> > .

> > > The mixer section of the radio takes the incoming frequency and  
> beats  
> > > it with the local oscillator to produce the intermediate  
> frequency.  
> >  
> > .....  
> .....  
> > .  
> > > **RADIOS WILL NOT WORK WITHOUT A MIXER**  
> >  
> > .....  
> .....  
> > .  
> > > I thought my mixer might be useful in this respect.  
> > > Bob  
> >  
> >  
> > I'm thinking of establishing a premium receiver/culinary pursuits  
> newsgroup.  
> > Any interest out there (in addition to Bob, of course)?  
> >  
> > --howard n7exn  
> >  
> >  
> > ---  
> > Submissions milsurplus@qth.net

-----  
Date: Thu, 05 Jul 2001 16:48:54 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: Prem-Rx: The RACAL saga continues

Hi All:

After receiving John Reed's email about the elliptical filter response of the first mixer board that shapes the LO synthesizer output, it got me to thinking (a most difficult task in itself). I decided it was time to roll up my sleeves and see what exactly was going on inside the RA6790GM. I took both receivers to work, where I have access to HP test equipment. I wanted to measure the voltage levels at four locations starting with the synthesizer output, pre elliptical filter, post elliptical filter and complimentary driver output to the mixer. The scope I used to measure the voltage levels was a HP70703A (DC to 500MHZ) and a Pomona X1 probe with a frequency response to 100MHZ. I measured the voltages of the first LO at eight frequencies starting at 40.455MHZ up to 70.455MHZ. I stepped in 5MHZ increments except for a measurement at 40.955 which equates to 500KHZ on the display. All voltage readouts are RMS and for reference purposes 800mV at 50ohms = 11dBm. This is the level RACAL specifies for 1st LO synthesizer out (before the driver). The readings from the synthesizer output were made by connecting a SMB to BNC adapter straight to the output connector on the synth board, and then connecting a length of RG58 from the adapter to the scope input. The scope has 50 ohm input coupling capability so no outboard load was needed. The other measurements were made at high Z and at test points on the board. Below are the results and I sure hope they format OK.

Receiver #1 S/N: 5088

LO OUT SYNTH OUT PRE FILT POST FILT DRIVER 40.455mhz 400mV 792mV 306mV 9.4V  
40.955 404 790 354 9.3 45.455 441 734 474 8.1 50.455 485 605 540 8.0 55.455 540 451 653 7.5  
60.455 611 457 652 7.4 65.455 681 627 667 6.0 70.455 750 888 735 6.5

Receiver #2 S/N: 1291

LO OUT SYNTH OUT PRE FILT POST FILT DRIVER 40.455 447mV 860mV 473mV 10.1V 40.955  
443 831 508 10.0 45.455 481 583 550 8.2 50.455 519 481 602 7.25 55.455 577 556 673 6.4 60.455  
660 668 666 6.2 65.455 727 813 720 6.4 70.455 790 1.07 838 7.1

It appears from the measurements that there is sufficient drive at LF for proper RF to IF conversion (As if a watt weren't enough!). The next test is to measure the frequency response of the RF input transformer of the 1st mixer. If the input transformer has good response down to 150KHZ then all that is left is the EPROM and then I should be in business. BTW, I found before I started this test, the receiver I checked out the first of this week needed adjustment. Thus the reason for the suck-out below 1MHZ on the display. The second receiver didn't exhibit this at all. I tweaked it as best as I could in the little time I had to perform these tests. The second unit in the test was not adjusted. Later on I'll use a sweep generator and spectrum analyzer to perform the adjustments which should permit me to achieve a much flatter response. That is another day. Comments and suggestions welcome.

73 John/AB4MS

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premium-rx-digest Friday, July 6 2001 Volume 01 : Number 138  
-----

Date: Thu, 5 Jul 2001 17:04:00 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: The RACAL saga continues

Hi John, Maybe you could disconnect the mixer from the amplifier and terminate the amplifier. This way you won't see the effects of the transformer reactance dropping off at the low end. The changing load on the filter may effect the response and ripple. Just a thought if you see the level dive after the filter. Somewhere I have the resonant frequency of each filter section. Let me know if you need it and I will get it to you. fc

> -----Original Message-----

> From: John Hoopes [SMTP:jdhatti@hom.net]  
> Sent: Thursday, July 05, 2001 7:49 PM  
> To: Premium-RX@kahuna.sdsu.edu  
> Subject: Prem-Rx: The RACAL saga continues  
> Hi All:

> After receiving John Reed's email about the elliptical filter response of  
> the  
> first mixer board that shapes the LO synthesizer output, it got me to  
> thinking  
> (a most difficult task in itself). I decided it was time to roll up my  
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> and see what exactly was going on inside the RA6790GM. I took both  
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> 40.455mhz 400mV 792mV 306mV 9.4V  
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> 55.455 540 451 653 7.5  
> 60.455 611 457 652 7.4  
> 65.455 681 627 667 6.0  
> 70.455 750 888 735 6.5

> Receiver #2 S/N: 1291

> LO OUT SYNTH OUT PRE FILT POST FILT DRIVER  
> 40.455 447mV 860mV 473mV 10.1V  
> 40.955 443 831 508 10.0  
> 45.455 481 583 550 8.2  
> 50.455 519 481 602 7.25  
> 55.455 577 556 673 6.4  
> 60.455 660 668 666 6.2  
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- > adjusted.
- > Later on I'll use a sweep generator and spectrum analyzer to perform the
- > adjustments which should permit me to achieve a much flatter response.
- > That is
- > another day. Comments and suggestions welcome.

> 73  
 > John/AB4MS

-----  
 Date: Thu, 05 Jul 2001 17:25:27 -0700  
 From: John Hoopes <jdhatti@hom.net>  
 Subject: Prem-Rx: Reformatted figures

Sorry for any confusion in the first e-mail. I wasn't sure how the figures would format. Now I know. Hopefully this will turn OK and more understandable.

Receiver #1 S/N: 5088

LO FREQ SYNTH OUT PRE FILT POST FILT DRIVER 40.455mhz 400mV 792mV 306mV 9.4V  
 40.955mhz 404mV 790mV 354mV 9.3V 45.455mhz 441mV 734mV 474mV 8.1V 50.455mhz 485mV  
 605mV 540mV 8.0V 55.455mhz 540mV 451mV 653mV 7.5V 60.455mhz 611mV 457mV 652mV 7.4V  
 65.455mhz 681mV 627mV 667mV 6.0V 70.455mhz 750mV 888mV 735mV 6.5V

Receiver #2 S/N: 1291

LO FREQ SYNTH OUT PRE FILT POST FILT DRIVER 40.455mhz 447mV 860mV 473mV 10.1V  
 40.955mhz 443mV 831mV 508mV 10.0V 45.455mhz 481mV 583mV 550mV 8.2V 50.455mhz 519mV  
 481mV 602mV 7.2V 55.455mhz 577mV 556mV 673mV 6.4V 60.455mhz 660mV 668mV 666mV 6.2V  
 65.455mhz 727mV 813mV 720mV 6.4V 70.455mhz 790mV 1.07V 838mV 7.1V

73 John

-----  
 Date: Thu, 05 Jul 2001 19:01:06 -0700  
 From: John Reed <jreed@ponca.net>  
 Subject: Re: Prem-Rx: The RACAL saga continues

John Hoopes wrote:

- > Hi All:
- > After receiving John Reed's email about the elliptical filter response of the
- > first mixer board that shapes the LO synthesizer output, it got me to thinking
- > (a most difficult task in itself). I decided it was time to roll up my sleeves
- > and see what exactly was going on inside the RA6790GM. I took both
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The information I gave you about the LO filter was what I saw on an RA6773E. On that receiver the S meter can be switched to watch the LO drive level. First I did the mod to let the receiver tune down to 0 Hz. After doing this it was a poor performer below about 500 KHz. I realigned the LO high pass filter (4 section elliptical) to change the high pass to start about 200 KHz. After that the receiver works very well all the way down, and the drive level remains constant.

I guess that information can't be extrapolated to RA6790 receivers. I also have an RA6793A, but it has the factory installed LF option, so it can't tell me much about the performance of a normal 6790 series receiver at LF.

73, John

-----

Date: Thu, 05 Jul 2001 23:53:41 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: Re: Prem-Rx: The RACAL saga continues

John,

Maybe the information can't be extrapolated directly for use with the 6790 but is pertinent none the less. Who knows how many golden screwdrivers have been inside these receivers before I got them. I wouldn't have been the wiser without the help of yourself and Frank Carcia. Anyway, I think we're making progress!

So much tinkering. So little time.

73, John

At 07:01 PM 7/5/01 -0700, you wrote:

> John Hoopes wrote:

>

> Hi All:

>

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-----  
 Date: Wed, 4 Jul 2001 01:04:29 -0400  
 From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
 Subject: Prem-Rx: [GreenKeys] Extraordinary mixer

Hello All--

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- > I thought my mixer might be useful in this respect.
- > Bob

I'm thinking of establishing a premium receiver/culinary pursuits newsgroup. Any interest out there (in addition to Bob, of course)?

--howard n7exn  
 ---- Submissions: greenkeys@qth.net

-----  
 Date: Fri, 6 Jul 2001 00:06:57 -0700  
 From: "Spencer Bahner" <spencer12345@email.msn.com>  
 Subject: Prem-Rx: Surplus sources in San Antonio, Tx?

Can anyone recommend any decent surplus sources in the greater San Antonio, Texas area (especially ones that might have some exotic receiver gear- of course!)?

I'll be down there in a couple weeks taking delivery on a microwave radio system at Harris and think I might have some time to kill.

Thanks in advance!

Spencer Bahner Seattle spencer12345@msn.com

-----  
Date: Fri, 6 Jul 2001 12:25:02 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: The RACAL saga continues

This message is in MIME format. Since your mail reader does not understand this format, some or all of this message may not be legible.

- -----\_=\_NextPart\_000\_01C10638.35730470 Content-Type: text/plain; charset="iso-8859-1"  
< < gram412.zip

> Hi All, Here is the software to turn a pc into a low frequency spectrum analyzer. I loaded it last night and drove it with a microphone. Next step is to stop by Radio Shack and pick up a connector to build an interface cable between the RA6830-518 6.4 kHz Base Band output and the pc. fc

> -----Original Message-----

> From: John Hoopes [SMTP:jdhatti@hom.net]  
> Sent: Friday, July 06, 2001 2:54 AM  
> To: jreed@ponca.net  
> Cc: Premium-RX@kahuna.sdsu.edu  
> Subject: Re: Prem-Rx: The RACAL saga continues  
>

> John,

> Maybe the information can't be extrapolated directly for use with the 6790  
> but is pertinent none the less. Who knows how many golden screwdrivers  
> have  
> been inside these receivers before I got them. I wouldn't have been the  
> wiser without the help of yourself and Frank Carcia. Anyway, I think we're  
> making progress!

> So much tinkering. So little time.

> 73,  
> John

>  
> At 07:01 PM 7/5/01 -0700, you wrote:  
> > John Hoopes wrote:  
> >

> >  
> Hi All:  
> >

> >  
> After receiving John Reed's email about the elliptical filter response  
> of the

> >  
> first mixer board that shapes the LO synthesizer output, it got me to  
> thinking  
> >  
> (a most difficult task in itself). I decided it was time to roll up my  
> sleeves  
> >  
> and see what exactly was going on inside the RA6790GM. I took both  
> >  
> receivers to  
> >  
> work, where I have access to HP test equipment. I wanted to measure the  
> >  
> voltage  
> >  
> levels at four locations starting with the synthesizer output, pre  
> elliptical  
> >  
> filter, post elliptical filter and complimentary driver output to the  
> mixer.  
> >  
> The scope I used to measure the voltage levels was a HP70703A (DC to  
> 500MHZ)  
> >  
> and a Pomona X1 probe with a frequency response to 100MHZ. I measured  
> the  
> >  
> voltages of the first LO at eight frequencies starting at 40.455MHZ up  
> to  
> >  
> 70.455MHZ. I stepped in 5MHZ increments except for a measurement at  
> 40.955  
> >  
> which equates to 500KHZ on the display. All voltage readouts are RMS  
> and  
> for  
> >  
> reference purposes 800mV at 50ohms = 11dBm. This is the level RACAL  
> >  
> specifies  
> >  
> for 1st LO synthesizer out (before the driver). The readings from the  
> >  
> synthesizer output were made by connecting a SMB to BNC adapter  
> straight to  
> >  
> the  
> >  
> output connector on the synth board, and then connecting a length of  
> RG58 from  
> >  
> the adapter to the scope input. The scope has 50 ohm input coupling  
> capability  
> >



> so no outboard load was needed. The other measurements were made at  
> high  
> Z and  
> >  
> at test points on the board. Below are the results and I sure hope they  
> format  
> >  
> OK.  
> >

> >  
> Receiver #1 S/N: 5088  
> >

> >  
> LO OUT SYNTH OUT PRE FILT POST FILT DRIVER  
> >  
> 40.455mhz 400mV 792mV 306mV 9.4V  
> >  
> 40.955 404 790 354 9.3  
> >  
> 45.455 441 734 474 8.1  
> >  
> 50.455 485 605 540 8.0  
> >  
> 55.455 540 451 653 7.5  
> >  
> 60.455 611 457 652 7.4  
> >  
> 65.455 681 627 667 6.0  
> >  
> 70.455 750 888 735 6.5  
> >

> >  
> Receiver #2 S/N: 1291  
> >

> >  
> LO OUT SYNTH OUT PRE FILT POST FILT DRIVER  
> >  
> 40.455 447mV 860mV 473mV 10.1V  
> >  
> 40.955 443 831 508 10.0  
> >  
> 45.455 481 583 550 8.2  
> >  
> 50.455 519 481 602 7.25  
> >  
> 55.455 577 556 673 6.4  
> >  
> 60.455 660 668 666 6.2  
> >  
> 65.455 727 813 720 6.4

> >  
> 70.455 790 1.07 838 7.1  
> >

> >  
> It appears from the measurements that there is sufficient drive at LF  
> for  
> >  
> proper RF to IF conversion (As if a watt weren't enough!). The next  
> test  
> is to  
> >  
> measure the frequency response of the RF input transformer of the 1st  
> mixer.  
> >  
> If the input transformer has good response down to 150KHZ then all that  
> is  
> >  
> left  
> >  
> is the EPROM and then I should be in business. BTW, I found before I  
> started  
> >  
> this test, the receiver I checked out the first of this week needed  
> >  
> adjustment.  
> >  
> Thus the reason for the suck-out below 1MHZ on the display. The second  
> >  
> receiver  
> >  
> didn't exhibit this at all. I tweaked it as best as I could in the  
> little time  
> >  
> I had to perform these tests. The second unit in the test was not  
> adjusted.

> >  
> Later on I'll use a sweep generator and spectrum analyzer to perform  
> the  
> >  
> adjustments which should permit me to achieve a much flatter response.  
> That is  
> >  
> another day. Comments and suggestions welcome.  
> >  
> > The information I gave you about the LO filter was what I saw on an  
> > RA6773E. On that receiver the S meter can be switched to watch the LO  
> > drive level. First I did the mod to let the receiver tune down to 0  
> > Hz. After doing this it was a poor performer below about 500 KHz. I  
> > realigned the LO high pass filter (4 section elliptical) to change the  
> > high pass to start about 200 KHz. After that the receiver works very  
> > well all the way down, and the drive level remains constant.  
> >

> > I guess that information can't be extrapolated to RA6790 receivers. I  
> > also have an RA6793A, but it has the factory installed LF option, so it  
> > can't tell me much about the performance of a normal 6790 series  
> > receiver at LF.  
> >  
> > 73, John  
> >

-----  
premium-rx-digest Sunday, July 8 2001 Volume 01 : Number 139  
-----

Date: Fri, 06 Jul 2001 17:38:57 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: RE: Prem-Rx: The RACAL saga continues

Thanks for sending that program Frank! I don't have a base band output on the 6790 but I think the audio out would do the same thing. Should make a nice spectrum analyzer. This gives me an idea. I've wanted to build an earth dipole and listen for, or look for in this case, the 76HZ CW signal the Navy uses or used to communicate with submarines. I read about one of the Navy's transmitter sites in Pop Com magazine a few years ago. I think it was located in Michigan. The antenna was a 50 mile long wire that ran through the woods and the transmitter was a 2 megawatt job that sent a 3 character CW message over a 15 minute period. This was supposedly to tell the subs to come near the surface and receive additional intel via VLF transmission. I Wonder if they still use ELF? This spectrum software would be ideal for this. Hmmm, I smell another project:-).

73 John

PS. I was at Wal Mart and they were having a sale on mixers. I wonder if the 6790's mixer could stand to be upgraded. After all, replacing those fets gets to be very time consuming.

At 10:10 AM 7/6/01 -0400, you wrote:

> Hi,  
> This way you will be able to tell if the transformer is going away  
> or the filter is sucking the power down.  
> I think the sections of the filter are resonated in the high thirty  
> MHz range. If they could be pulled a half MHz lower  
> you will be in business as far as the LO is concerned. My guess is  
> the filter is taking over. The 6830 has a series  
> cap in the input protection circuit. It is a self healing cap. A  
> series cap will be a problem as the frequency is decreased.  
> I think this was new stuff used for the 6830. There is a input  
> limiter and static arrester. I bet this was added after  
> the 6790 mixer blow out problems to improve the design.  
> The fourth of July I decided to cook. the weather wasn't that great  
> to go to the beach so the kids and I made a batch  
> of meat balls for some soul food. By the time we were done I had the  
> kitchen pass to repair my spectrum analyzer  
> and my wife didn't have to cook for 2 days. The mess was big enough  
> that she was happy to see us move on to other projects.  
> Good luck getting yours.  
> fc

> -----Original Message-----

> From: John Hoopes [SMTP:jdhatti@hom.net]

> Sent: Friday, July 06, 2001 12:41 PM

> To: Carcia, Frank A. HS

> Subject: RE: Prem-Rx: The RACAL saga continues

>

> Hi Frank,

>

> I see what you mean. I guess I need to try terminating the filter and the  
> drivers with 50ohms and check the response again. I'm trying to find some  
> time to get back to the shop and run some more tests but the wife has me  
> doing other things. Ugggh. I can't wait to go back to work so I can get  
> some rest!

>

> 73

> John

>

> At 08:01 AM 7/6/01 -0400, you wrote:

> > Hi John,

> > I will look over the weekend. The 6830 also has the load resistors

> > at the output of the transformer. My only point is as you go lower

> > in

> > frequency the primary of the transformer will decrease in reactance

> > and place a lower impedance load on the filter. That may cause

> > pass band ripple in the filter response. I'm sure the resistors are

> > there to force the load on the filter because the mixer fets are

> > just caps for gate load on the transformer. The gates only want

> > to see the voltage swing. Without the resistors the impedance

> > would be all over the place and the filter would not be properly

> > terminated. fc

> >

> >

> -----Original Message-----

> >

> From: John Hoopes [SMTP:jdhatti@hom.net]

> >

> Sent: Thursday, July 05, 2001 8:43 PM

> >

> To: Carcia, Frank A. HS

> >

> Subject: RE: Prem-Rx: The RACAL saga continues

> >

>

> >

> At 05:04 PM 7/5/01 -0400, you wrote:

> > > > Hi John,

> > > > Maybe you could disconnect the mixer from the amplifier and

> > > > terminate the amplifier. This way you won't see the effects of the

> > > > transformer reactance dropping off at the low end. The changing load

> > > > on the filter may effect the response and ripple. Just a thought

> > > > if you see the level dive after the filter. Somewhere I have the

> > > > resonant frequency of each filter section. Let me know if you need

> > > > it and I will get it to you. fc

> > > >

> >

> Hi Frank,

> >

>

> >

> If I understand the circuitry correctly, the LO transformer is a

> broadband

> >

> transmission line with a 1:4 Z ratio unbalanced to balanced. One thing

> the

> >

> RACAL engineers did in this particular instance, was to terminate the

> >

> output of the broadband transformer with two 100 ohm resistors from

> each

> >

> output to ground otherwise they would see just the capacitive gates of

> the

> >

> DMOS Fets. So essentially, the complimentary drivers are working into a

> >

> resistive load. I don't know how this affects what the elliptical

> filter

> >

> sees because it is looking into the pre-driver for the pair which I

> >

> imagine

> >

> is close to 50 ohms. So I think in response to your suggestion, it has

> been

> >

> already done, but I'm not really sure. Judging by what I just said, do

> you

> >

> think I should still try this? Maybe terminate the output of the

> filter?

> >

> >

> >

> If you could find those frequencies, it would be appreciated. Thanks

> >

> Frank.

> >

>  
> >  
> 73

> >  
> John

> >

-----  
Date: Fri, 06 Jul 2001 20:11:50 -0700  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: RE: Prem-Rx: The RACAL saga continues

At 05:38 PM 7/6/2001 -0700, you wrote:

>

> I've wanted to build an earth dipole and listen for, or look for in this case, the 76HZ CW signal the Navy uses or used to communicate with submarines. I read about one of the Navy's transmitter sites in Pop Com magazine a few years ago.

I wrote that story. The ERP for that transmitter is 3 watts because of the horribly inefficient antenna. The signal is sent in excruciating slow FSK with a 4 Hz shift. Using computers and million dollar receivers (in 1980 dollars) stuffed with DSP they can send 3 letters in 15 minutes.

They are basically dumping 1.5 million watts of slightly altered AC power into ground rods. Then they are digging signals out from so far under the noise it isn't funny, especially considering that the signal supposedly tells a nuclear armed Trident submarine what to do.

Terry O'Laughlin

-----  
Date: Fri, 06 Jul 2001 23:34:35 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: RE: Prem-Rx: The RACAL saga continues

Hi Terry,

You never know who you'll meet on the Internet. Well thanks for stopping and by and sharing that with us. I know it's a little off subject but I think we can stray from time to time:-) Anyway, that was a mighty fine and interesting article otherwise it wouldn't have stuck in my mind for such a long time. I was thinking that the earthworms in Michigan don't have to go very deep to stay warm in the winter when they fire up ol' Betsy.

By the way, I found out from our European friends that the Russians also use a similar system on 82 hZ and some of the listeners over there have received the signals using DSP software. It's amazing.

Regards, John

At 08:11 PM 7/6/01 -0700, you wrote:

> At 05:38 PM 7/6/2001 -0700, you wrote:

> >

>

> I've wanted to build an earth dipole and listen for, or look for in

> this case, the 76HZ CW signal the Navy uses or used to communicate with  
> submarines. I read about one of the Navy's transmitter sites in Pop Com  
> magazine a few years ago.

> I wrote that story. The ERP for that transmitter is 3 watts because of the  
> horribly inefficient antenna. The signal is sent in excruciating slow FSK  
> with a 4 Hz shift. Using computers and million dollar receivers (in 1980  
> dollars) stuffed with DSP they can send 3 letters in 15 minutes.

> They are basically dumping 1.5 million watts of slightly altered AC power  
> into ground rods. Then they are digging signals out from so far under the  
> noise it isn't funny, especially considering that the signal supposedly  
> tells a nuclear armed Trident submarine what to do.

> Terry O'Laughlin

-----  
Date: Sat, 07 Jul 2001 00:53:09 -0400  
From: Bob Milne <rmilne@cfl.rr.com>  
Subject: Prem-Rx: 6790/GM Error Code

Hi All,

I'm still unpacking from my move to Fla., and haven't found my Racal manual yet. Can somebody tell me what Error Code 15 is?

Thanks.... ....Bob

-----  
Date: Fri, 6 Jul 2001 22:09:34 -0700 (PDT)  
From: Robert Kelley <pasha@kali.com>  
Subject: Re: Prem-Rx: 6790/GM Error Code

"Either no filters are installed in the system, or the synthesizer signal strength is out of range prescribed for BITE."

"Probable fault A2"

"NOTE if no 15 error, A2, A3, and A4 are fully functional."

On Sat, 7 Jul 2001, Bob Milne wrote:

> Hi All,

> I'm still unpacking from my move to Fla., and haven't found my Racal  
> manual yet. Can somebody tell me what Error Code 15 is?

> Thanks....  
> ....Bob

-----  
Date: Sat, 7 Jul 2001 01:49:49 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: RA6790/GM ELF / VLF coverage



--part1\_90.16c1dc5d.2877fcfd\_boundary Content-Type: text/plain; charset= "US-ASCII" Content-Transfer-Encoding: 7bit

Hi, With all this info. circulating on the list at the moment about the ELF/VLF coverage, how can you tell if it is a factory fitted option? Is there a code somewhere on the set? When I bought mine, I was satisfied that it had just come out of service, and on opening it up, the EPROMS were marked ELF/VLF extension, on labels that looked as if they had been there since day 1, and it tunes down to 0, I can get signals down to about 10KHz but how do you tell if you have all the right bits?? Dave

--part1\_90.16c1dc5d.2877fcfd\_boundary Content-Type: text/html; charset= "US-ASCII" Content-Transfer-Encoding: 7bit

> < FONT FACE= arial,Helvetica

> < FONT SIZE= 2

> Hi,

> With all this info. circulating on the list at the moment about the  
> ELF/VLF coverage, how can you tell if it is a factory fitted option? Is there  
> a code somewhere on the set? When I bought mine, I was satisfied that it had  
> just come out of service, and on opening it up, the EPROMS were marked  
> ELF/VLF extension, on labels that looked as if they had been there since day  
> 1, and it tunes down to 0, I can get signals down to about 10KHz but how do  
> you tell if you have all the right bits?? Dave

>

--part1\_90.16c1dc5d.2877fcfd\_boundary--

-----  
Date: Sat, 07 Jul 2001 09:58:56 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: Re: Prem-Rx: RA6790/GM ELF / VLF coverage

Hi Dave,

That is a good question. I'm not 100 percent sure but I believe it's the 6793 that was the LF/HF version of the 6790. Basically what the differences are is software up-grade to permit tuning below 500kHz and different 1st and 2nd mixer boards and I believe the 1st LO synthesizer board was also different. You probably have just the EPROMS from the 6793.

From my experience owning two 6790s, they work fine in LF at least down to 200KHz where the sensitivity diminishes with the stock 6790GM boards. It is possible to hear signals down to 10KHz with reduced sensitivity but then the LO synthesizer phase noise will mask any signals below that and this would occur in any receiver (synthesized), even one designed for LF/VLF.

It is my intention to obtain the necessary EPROMS for my receiver, install them and call it quits. I think I will be quite happy with it for occasional listening of the LF/VL frequencies.

Hope this helps.

73 John

At 01:49 AM 7/7/01 -0400, you wrote:

> Hi,

> With all this info. circulating on the list at the moment about the  
> ELF/VLF coverage, how can you tell if it is a factory fitted option? Is there

> a code somewhere on the set? When I bought mine, I was satisfied that it had

> just come out of service, and on opening it up, the EPROMS were marked  
> ELF/VLF extension, on labels that looked as if they had been there since day  
> 1, and it tunes down to 0, I can get signals down to about 10KHz but how do  
> you tell if you have all the right bits?? Dave

-----  
Date: Sat, 07 Jul 2001 13:32:24 -0700  
From: John Reed <jreed@ponca.net>  
Subject: Re: Prem-Rx: RA6790/GM ELF / VLF coverage

John Hoopes wrote:

> Hi Dave,

> That is a good question. I'm not 100 percent sure but I believe it's the 6793  
> that was the LF/HF version of the 6790. Basically what the differences are is  
> software up-grade to permit tuning below 500kHz and different 1st and 2nd  
> mixer  
> boards and I believe the 1st LO synthesizer board was also different. You  
> probably have just the EPROMS from the 6793.

Here's what I was able to find on some sales material from Racal. The RA6793A is called a scanning receiver. The RA6790 is just called an HF receiver. The range of the RA6793A (unmodified) is 50 KHz to 30 MHz. There are actually 3 LF-VLF options: Coverage to 20 KHz, 10 KHz and a VLF extension to 1 KHz. The original owner who purchased the receiver from Racal new told me he tried to get the 1 KHz extension, but they wouldn't sell it to an individual (national security I guess). Maybe they didn't want him listening to submarine communications. He had to settle for the 10 KHz option. It added \$2764 to the receiver's price. However it does work well. I did some testing of the LF sensitivity. It's perfectly flat down to 30 KHz with a noise figure of 14 dB. At 25 KHz it goes to 19 dB, at 20 to 20 dB and at 10 it's noise limited (synthesizer noise).

I know that the input filter, first mixer, main IF, microprocessor and both synthesizer boards are different on the RA6793A than on the RA6793 but I don't know how many of these boards make up the LF option.

73, John

-----  
Date: Sat, 7 Jul 2001 17:46:23 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: W&J 8700

--part1\_12a.118d580.2878dd2f\_boundary Content-Type: text/plain; charset="US-ASCII" Content-Transfer-Encoding: 7bit

Hi, Are there any WJ-8700 drivers out there who could possibly give me a few tips on driving the thing? I cant figure out how to do it even with the full manual, any offers? Dave

--part1\_12a.118d580.2878dd2f\_boundary Content-Type: text/html; charset="US-ASCII" Content-Transfer-Encoding: 7bit

> < FONT FACE= arial,helvetica

> < FONT SIZE= 2

> Hi,

> Are there any WJ-8700 drivers out there who could possibly give me a few  
> tips on driving the thing? I cant figure out how to do it even with the full  
> manual, any offers? Dave

>

--part1\_12a.118d580.2878dd2f\_boundary--

-----  
Date: Sat, 07 Jul 2001 23:37:05 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: Prem-Rx: Is my mail system out? [test, do not read]

test

-----  
Date: Sat, 7 Jul 2001 22:55:00 -0600  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: Prem-Rx: 6790/GM Connectors

Hi Everyone,

Does anyone know where to find (surplus?) the round serial connector on 6790/GM's so equipped? I have sourced them out new, but American Connector has a \$50 minimum, there has been no answer from William Perry, and that just about exhausts my source list :-)

The numbers are:

MS3476116-26S MS3417-16N

TIA.

Shaun - ----- Shaun Merrigan smerriga@compusmart.ab.ca

-----  
Date: Sun, 08 Jul 2001 08:56:41 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: Re: Prem-Rx: 6790/GM Connectors

Hi Shawn,

If you don't mind a slight modification, you can mount a DB9 or DB25 connector with very little effort and a whole lot less money. I did this to one of mine and it works great. If you would like, I could send some JPGs of what it looks like and also how to connect the ribbon cable from the A6.

Regards, John

At 10:55 PM 7/7/01 -0600, you wrote:

> Hi Everyone,

> Does anyone know where to find (surplus?) the round serial connector  
> on 6790/GM's so equipped? I have sourced them out new, but  
> American Connector has a \$50 minimum, there has been no answer from  
> William Perry, and that just about exhausts my source list :-)

> The numbers are:

> MS3476116-26S  
> MS3417-16N

> TIA.

> Shaun  
> -----  
> Shaun Merrigan  
> smerriga@compusmart.ab.ca

-----  
Date: Sun, 08 Jul 2001 12:03:37 -0700  
From: Charles Hutton <chutton1@qwest.net>  
Subject: Prem-Rx: Varactor based preselector

Guys:

I keep thinking about the idea of making a MW varactor tuned preselector that automatically tunes to the correct frequency. I'd use a DAC to drive the varactor and an ADC to calibrate it. In other words, it would have a test mode where you tune it to the test frequencies, the preselector reads the required voltage via the ADC, and then (in normal mode) outputs that voltage via the DAC.

I have several little questions about this..... First of all, I learned recently that the NRD535 has an auto-tracking preselector. In the same breath, the person that mentioned that also said it wasn't though of as working very well. That's all he could say. So, can anyone tell me how the NRD535 implemented this and why it didn't set the world on fire???

There are only a couple of varactors (MVAM series and one other whose number is at work) I know about that have enough capacitance to do this job, and they have rather limited Q factors. Are there others available, or does this not become a real issue?

And lastly, what can I expect for the IMD performance of a varactor based unit? If it is likely to be so-so at best, perhaps I'd be better off using a regenerative preselector where careful design could yield better selectivity and IMD.

Chuck

-----  
Date: Sun, 8 Jul 2001 15:22:42 -0400  
From: "Peter Gottlieb" <peter@newyorknerd.com>  
Subject: Re: Prem-Rx: Varactor based preselector

I have the big monster Harris 551 preselector which doesn't go below 2 MHz. It tracks the receiver by having been designed with a linear voltage to frequency curve and taking the digital receiver frequency and converting it via resistor ladder DAC to an analog voltage which is then used to control a tuning capacitor position servo which has a precision pot as feedback element.

They chose to use a linear curve to avoid having to calibrate (Their unit calibration is a real bear, though). I suppose you could use a micro like a PIC with eeprom and calibrate over a bunch of points and use a polynomial curve fit (or even linear if enough points and/or poor Q). But I think whatever way you go the RF design is going to be more of a challenge than the tuning.

If you can't get a varactor diode with enough capacitance and the characteristics you need, why not use a bunch of good but low capacitance ones in parallel?

- ----- Original Message -----

From: "Charles Hutton" <chutton1@qwest.net>  
To: <PREMIUM-RX@kahuna.sdsu.edu>  
> Sent: Sunday, July 08, 2001 3:03 PM  
Subject: Prem-Rx: Varactor based preselector  
> Guys:

- > I keep thinking about the idea of making a MW varactor tuned preselector
- > that automatically tunes to the correct frequency. I'd use a DAC to
- > drive the varactor and an ADC to calibrate it. In other words, it would
- > have a test mode where you tune it to the test frequencies, the
- > preselector reads the required voltage via the ADC, and then (in normal
- > mode) outputs that voltage via the DAC.
  
- > I have several little questions about this..... First of all, I
- > learned recently that the NRD535 has an auto-tracking preselector. In
- > the same breath, the person that mentioned that also said it wasn't
- > though of as working very well. That's all he could say. So, can anyone
- > tell me how the NRD535 implemented this and why it didn't set the world
- > on fire???
  
- > There are only a couple of varactors (MVAM series and one other whose
- > number is at work) I know about that have enough capacitance to do this
- > job, and they have rather limited Q factors. Are there others available,
- > or does this not become a real issue?
  
- > And lastly, what can I expect for the IMD performance of a varactor
- > based unit? If it is likely to be so-so at best, perhaps I'd be better
- > off using a regenerative preselector where careful design could yield
- > better selectivity and IMD.

>  
> Chuck

>

-----  
Date: Sun, 08 Jul 2001 12:54:09 -0700  
From: David Ross <ross@hypertools.com>  
Subject: Re: Prem-Rx: Varactor based preselector

RX folks -

Charles Hutton wrote:

- > I keep thinking about the idea of making a MW varactor tuned preselector
- > that automatically tunes to the correct frequency. I'd use a DAC to
- > drive the varactor and an ADC to calibrate it. In other words, it would
- > have a test mode where you tune it to the test frequencies, the
- > preselector reads the required voltage via the ADC, and then (in normal
- > mode) outputs that voltage via the DAC.

Nice idea. It is something Collins did back in the late '60s in their URG-2 line of equipment, but they used a motorized air-variable cap in place of the varicap.

Their scheme for mapping preselector settings to receiver freqs was unique... No DACs or lookup tables, what they did was turn the receiver into a low power exciter and then move the preselector cap until the 'exciter' output peaked. Every time the receiver was rechanneled, they re-mapped the preselector for that particular frequency.

The receiver's last IF is at 250 KHz. As part of the tuneup sequence, they fed a 250 KHz signal backwards through the receiver. That 250 KHz signal went through the receiver's normal mixing scheme backwards, and showed up at the antenna side of the first mixer as a signal right at the

receiver's dial frequency. At that point, the signal had enough amplitude to drive a discriminator & servo amp setup, which in turn drove the motor on the preselector capacitor.

Just a thought...

73 Dave Ross N7EPI ross@hypertools.com

-----  
Date: Sun, 08 Jul 2001 14:15:26 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Re: Prem-Rx: Varactor based preselector

I have some experience in this area, so here is some info / thoughts:

Varactors work OK below 10 MHz, but deteriorate in Q on higher frequencies. While testing several tuned active antennas for Passport to Worldband Radio last year, some manufacturers used real tuning capacitors and others the much cheaper varacap with DC tuning pots. In all cases the gain and Q fell off dramatically above 20 MHz with the varacap, and if one unsoldered the varacap and substituted a good quality variable capacitor, the gain and tuning sharpness improved.

Being a JRC dealer, I have tested their input circuits over the years. In the early days the 515 used varacaps and a DC pot as a preselector for the MW broadcast band. This worked quite well, and should encourage you to try a MW preselector. On the higher bands the 515 used fractional octave bandpass filters. The 525 did away with the MW manually tuned preselector, and kept the fractional octave front end for HF. The 535 used a tracking preselector with varactors, and the Q was pretty good on the lower bands as one would expect. But by the time one got to 20 MHz, the Q was not very impressive, and it almost approximated a 1/2 octave filter. I swept the front end with a tracking generator / spectrum analyzer to get this data. So if one is expecting significant rejection on 20 meters and above of signals say 1 MHz away with the tracking preselector, you will be disappointed.

We use the MVAM varactors to tune the VCO in our SE-3 sync detector. Of course this is operating a 455 kHz, so they work quite well though there are six of them in parallel to tune plus / minus 5 or 6 kHz at this frequency. The reason it takes so many to tune such a limited span of frequency is we have to put the varacaps across the 10% tap on the oscillator coil to keep the AC voltage low enough so it does not exceed the DC VCO signal as the highest capacitance point. The top of the coil has an oscillator signal in the 30 volt P-P range! In your case, the issue will be the RF signal level coming into the diode. Lets say you go with a 10:1 turns ratio with a 100:1 impedance ratio. (5K at the top of the coil) Active antennas like the Dressler or the Wellbrook easily put out close to 0 dBm on local MW signals. (10 stations at -10 dBm is typical, and 3 stations above -5 dBm is not unusual.) Who needs 0 dBm blasting their radio, but this is what I consistently measure on an HP 3585A spectrum analyzer. Who knows what you will get with a long wire and a tuner. My shunt fed 70 foot tower with a 20 and 40 meter beam on top tuned for 160 meters just blasts most radios out of the water on 160 meters with MW overload. So lets say you have 0 dBm coming into your preselector at the 50 ohm tap. At the 5000 ohm point you will have over 2 volts RMS or about 6 volts peak to peak. That will limit your DC tuning range on the high C end of the varacap to less than one would expect. Typically Motorola will spec the delta C range from 2 volts to 12 volts, or something like that. But you will not be able to go anywhere near that low in DC voltage or the diodes will start conducting on the RF.

Your worries about IMD are probably valid, but I have never done any measurements from that aspect.

Years ago my design engineer, Mr. George Heidelman (K8RRH), solved multi-multi 160 meter contesting problems with J. W. Miller loopstick coils. (Miller 2000 seems like the right number, but it has been a long time ago.) One station was running on the 1.8 MHz segment and the other just below 2 MHz. We needed 40 dB or more ejection of the opposite segment, plus the good front end of the Drake radios we were using. Two coils were used, inductively coupled, spaced about 3 inches apart, and tuned with about 25 pF on 160 meters. The input/output taps were way down on the coil, so I would say the top of the coil was in 30k ohm to 100k ohm range. They were sharp enough on 160 to have to

be retuned every 10 kHz. They are really sharp down in the the broadcast band, actually significantly attenuating the high frequency audio of the MW stations on the low end of the band, with a 3 dB bandwidth of maybe as low as 5 or 6 kHz. I designed and manufactured several filters using this brute force technology for Alascom who needed to receive marine signals in the 2.2 MHz range while rejecting their own transmitter signals some 100 kHz away.

The practical problem with this approach was you had to keep all metal 6 to 8 inches away from these loop sticks, or their Q was ruined. So this made for a rather large metal rack mount enclosure for Alascom. For ham use, a wooden box was fine, but not very "professional". I don't know if these coils are still made today, but if you really wanted fantastic Q and performance with a manually tuned system, these did the job. In today's computer controlled world, you could have some DC servos tune the mechanical capacitors. Of course now we are entering into a modern "Boat Anchor" type of product that only R-390A fans would appreciate. Hi Hi.

If you "stole" the JRC NRD-515 front end for MW coverage, I think you would be happy with the results.

73, Rob Sherwood, NC0B.

Charles Hutton wrote:

> Guys:

> I keep thinking about the idea of making a MW varactor tuned preselector  
> that automatically tunes to the correct frequency. I'd use a DAC to  
> drive the varactor and an ADC to calibrate it. In other words, it would  
> have a test mode where you tune it to the test frequencies, the  
> preselector reads the required voltage via the ADC, and then (in normal  
> mode) outputs that voltage via the DAC.

> I have several little questions about this..... First of all, I  
> learned recently that the NRD535 has an auto-tracking preselector. In  
> the same breath, the person that mentioned that also said it wasn't  
> though of as working very well. That's all he could say. So, can anyone  
> tell me how the NRD535 implemented this and why it didn't set the world  
> on fire???

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> off using a regenerative preselector where careful design could yield  
> better selectivity and IMD.

> Chuck

-----  
Date: Sun, 08 Jul 2001 14:24:15 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Re: Prem-Rx: [GreenKeys] Extraordinary mixer

Over the weekend on eBay under Ham Radio were some listings for soup bowls with handles on each side (like on a coffee cup, but with two of them). I guess you could "mix your soup" in these, too. Maybe now my wife will start searching under the Ham Radio section in addition to jewelry and dolls.

"Howard L Ritter, Jr" wrote:

> Hello All--

> Today I saw a "vintage Camfield mixer...extraordinary" listed on ePay (item  
> 1162756176) while searching for "receivers  
> ham radio" so naturally I checked  
> it out...and found a kitchen food mixer! I emailed the seller, gently  
> remonstrating with him for "category violation" and wasting our valuable  
> time. Tonight I received this thoughtful reply from him:

> > Dear Howard:

> > If you are a radio person, you have probley heard of the mixer section of a  
> > radio.

> > .....

> .

> > The mixer section of the radio takes the incoming frequency and beats  
> > it with the local oscillator to produce the intermediate frequency.

> > .....

> .

> > RADIOS WILL NOT WORK WITHOUT A MIXER

> > .....

> .

> > I thought my mixer might be useful in this respect.

> > Bob

> I'm thinking of establishing a premium receiver/culinary pursuits newsgroup.

> Any interest out there (in addition to Bob, of course)?

> --howard n7exn

> ----

> Submissions: [greenkeys@qth.net](mailto:greenkeys@qth.net)

Date: Sun, 08 Jul 2001 17:18:15 -0400  
From: A D Shulman DDS <[dentist@nornet.on.ca](mailto:dentist@nornet.on.ca)>  
Subject: Prem-Rx: DA-100 / MAR-6 / RF screening

I have located & actually intend to repair two defunct McKay Dymek DA-100 active antenna headends. I use a working unit at present to cover LF/HF and I would like to try several antennas in different locations and perhaps experiment with diversity reception. Also, I am looking for a quieter spot to relocate my LF antenna and it would be nice to do instantaneous comparisons with a switch on two or three antennas.

I believe both these units have suffered lightning damage but none is visible. The main problem working with the item is that both are potted in clear silicone for weather protection. Let me tell you, it works very well indeed! I have hacked a fair bit of the silicone out and there is no evidence of corrosion underneath!

1.) Does anyone have a schematic or is familiar with the product?

In the shack, I have just completed an antennas positioned preamp for the 137.5 mhz WxSat band, using the Minicircuits MAR-6 part. I had no data to design from other than that which was included in the catalog. It boasts a NF of 2.8 db @ 2gig and seems to give me a bit better sensitivity when located at the (TimeStep) receiver. It pulls sigs out of the noise not audible without it. So it should do even better when relocated at the antenna ahead of the feedline.



2.) Is anyone familiar with this device (MAR-6) or can they point me to application notes for fine tuning the performance? Minicircuits provides next to no information nor any circuit examples. I was very careful to operate the device within the recommended DC and it seems quite stable.

Readers will recall my travail with the HP-608F a week ago. I mentioned that the only part still not found was the amp/osc shield cover. A week of using the generator indicates that accurate measurement below 1 uv output is not possible due to signal bleedthrough. This leakage also precludes the use of a external precision attenuator I would like to use for some measurements, as the leakage will predominate over the direct signal feed to the receiver. The completion of the preamp raised the point that I am unable to accurately peak the input tuned circuits. I have to 'knife' them so any movement might affect stray pickup. I decided that finding the old shield couldn't wait so I plan to make one.

3) Problem. It seems that it is not possible to find copper foil for shield-making purposes on a Sunday in Hamilton, Ontario. I did manage to find a nice roll of very thin (like typing paper) tin foil, but it is very fragile and it melts when touched with a soldering iron! I also found a roll of much thicker tin foil. I can in fact solder to it, but its a little too thick for my liking. The soldering requirement was to use a bit of shielding inside the preamp, and also for a shield cover after the unit is tuned up. The best I could do in the craft stores today was a 16"x20" sheet of 80 mesh woven copper. I think this will do the trick, especially if I double it and back up the edges with aluminum strip stock to give a positive contact. My question is how well will this copper screen (cloth) perform at RF? M instinct tells me it's OK, but I wonder if anyone else has a different idea?

Arthur Shulman

-----  
Date: Sun, 8 Jul 2001 14:47:23 -0700  
From: "refmon" <monitor@referencevideo.com>  
Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

Hi Arther et al,

Regarding item #3, I've been having great luck with the 3" copper foil found in garden stores as anti-slug barriers. I don't have the specs on hand, but, even though it's very flimsy in the open, it is equally malleable, bendable, solderable, etc and forms 3D boxes pretty well once you get the feel of it. I've been using it as shielding as part of my Cubic R3030 seal-up projects and as panel shields in various plastic-case scanners.

In the case of digital displays, I've been using 350 x 350 stainless steel mesh with great RF and optical results.

best luck--

John Collins \_\_\_\_\_ - ----- Original Message -----

From: A D Shulman DDS <dentist@nornet.on.ca>  
To: <Premium-Rx@kahuna.sdsu.edu>  
> Sent: Sunday, July 08, 2001 02:18 PM  
Subject: Prem-Rx: DA-100 / MAR-6 / RF screening  
> I have located & actually intend to repair two defunct McKay Dymek  
> DA-100 active antenna headends. I use a working unit at present to cover  
> LF/HF and I would like to try several antennas in different locations  
> and perhaps experiment with diversity reception. Also, I am looking for  
> a quieter spot to relocate my LF antenna and it would be nice to do  
> instantaneous comparisons with a switch on two or three antennas.

> I believe both these units have suffered lightning damage but none is  
> visible. The main problem working with the item is that both are potted

- > in clear silicone for weather protection. Let me tell you, it works very
- > well indeed! I have hacked a fair bit of the silicone out and there is
- > no evidence of corrosion underneath!
  
- > 1.) Does anyone have a schematic or is familiar with the product?
  
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- > the 137.5 mhz WxSat band, using the Minicircuits MAR-6 part. I had no
- > data to design from other than that which was included in the catalog.
- > It boasts a NF of 2.8 db @ 2gig and seems to give me a bit better
- > sensitivity when located at the (TimeStep) receiver. It pulls sigs out
- > of the noise not audible without it. So it should do even better when
- > relocated at the antenna ahead of the feedline.
  
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- > for some measurements, as the leakage will predominate over the direct
- > signal feed to the receiver. The completion of the preamp raised the
- > point that I am unable to accurately peak the input tuned circuits. I
- > have to 'knife' them so any movement might affect stray pickup. I
- > decided that finding the old shield couldn't wait so I plan to make one.
  
- > 3) Problem. It seems that it is not possible to find copper foil for
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- > strip stock to give a positive contact. My question is how well will
- > this copper screen (cloth) perform at RF? M instinct tells me it's OK,
- > but I wonder if anyone else has a different idea?

> Arthur Shulman

>

-----  
 Date: Sun, 8 Jul 2001 14:59:13 -0500  
 From: "John Miles" <jmiles1@speakeasy.net>  
 Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening  
 > 2.) Is anyone familiar with this device (MAR-6) or can they point me

- > to application notes for fine tuning the performance? Minicircuits
- > provides next to no information nor any circuit examples. I was very
- > careful to operate the device within the recommended DC and it seems
- > quite stable.

I'm running a Diamond discone antenna rated for 25-1300 MHz service on my second-floor balcony. It's connected to my R7000 with 50 feet of RG-8, which loses a few dB toward the high end of the range. So I built a preamp to mount at the antenna to overcome the coax loss.

My first attempt at the preamp used a MAR-6. What I really wanted was something with even lower NF than the MAR-6 and much less gain, but nothing I had in the junk box qualified. Unfortunately, the MAR-6's 1-dB compression point is only + 2 dBm, with IP3 about 12-14 dB higher as is usual for these parts. Combined with the fact that its gain is way too high for preamp service (18+ dB at 500 MHz), the IMD was awful. It's a better mixer than it is an amplifier. :)

I switched over to the MAV-11, which has a slightly worse NF (3.6 dB) and only 12 dB of gain (still more than I wanted), with a 1 dB point of 17.5 dBm and an IP3 of 30 dBm. This took care of almost all of the IMD problems -- I no longer heard pager signals and TV stations every 5 MHz or so. Although there are one or two spots where faint IMD problems are still evident, they're no longer intolerable.

After a few weeks of listening with this setup, there really are very, very few signals that can be heard only with the preamp on. (I used a couple of really nice 18 GHz relays from an old HP8555A plugin to switch the preamp in and out of the circuit on demand). The conventional wisdom in the VHF/UHF monitoring community is that broadband preamps are not really worth their salt as long as you have decent-quality coax runs of reasonable length, and I'm inclined to agree.

Like all the Mini-Circuits parts, there aren't really any "app notes" for the MAR-, MAV- and ERA-series MMICs that I know of. They are truly idiot-proof 50-ohm black boxes for the most part, without any glaring stability problems or twitchiness. Just solder them down to bare copper board with short interconnections, and what you see on the data sheet is what you'll get.

What I'd like to find is a MMIC amp with substantially lower gain and NF and the same or higher IP3 than the MAV-11. Anyone know of such a beast? All the higher-performance parts seem to require external biasing and Z-matching networks that aren't really suitable for plug-and-play broadband use.

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- > point that I am unable to accurately peak the input tuned circuits. I
- > have to 'knife' them so any movement might affect stray pickup. I
- > decided that finding the old shield couldn't wait so I plan to make one.

I'd suggest donating the 608 to your local yacht club as a marine-immobilization implement. They really aren't worth the electricity and gravity they consume. If you're on a budget, you can't do better than the option-323 HP8640B generators that show up on ebay all the time. Trust me, I've spent years using both 608s and 8640s. There is no comparison.... even without the infamous locking feature you'll get 10X better stability, and you won't have to relevel the darned thing every few MHz.

- > 3) Problem. It seems that it is not possible to find copper foil for
  - > shield-making purposes on a Sunday in Hamilton, Ontario.
- Maybe try a sheet of bare copper-clad board from Radio Shack?

-- jm

-----

Date: Sun, 8 Jul 2001 18:07:08 -0400  
From: "Peter Gottlieb" <peter@newyorknerd.com>  
Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

I have found the best source of decent gauge copper foil is roofing suppliers. Go visit your local roofer and ask for some copper flashing. The pieces you need will probably be given to you as they would be considered scrap. Or you can simply buy a 10 foot by 1 foot piece and have a many years supply.

Peter

- ----- Original Message -----

From: "A D Shulman DDS" <dentist@nornet.on.ca>  
To: <Premium-Rx@kahuna.sdsu.edu>  
> Sent: Sunday, July 08, 2001 5:18 PM  
Subject: Prem-Rx: DA-100 / MAR-6 / RF screening  
> I have located & actually intend to repair two defunct McKay Dymek  
> DA-100 active antenna headends. I use a working unit at present to cover  
> LF/HF and I would like to try several antennas in different locations  
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> I believe both these units have suffered lightning damage but none is  
> visible. The main problem working with the item is that both are potted  
> in clear silicone for weather protection. Let me tell you, it works very  
> well indeed! I have hacked a fair bit of the silicone out and there is  
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- > this copper screen (cloth) perform at RF? M instinct tells me it's OK,
- > but I wonder if anyone else has a different idea?

> Arthur Shulman

>

-----  
 Date: Sun, 08 Jul 2001 15:09:43 -0700  
 From: Charles Hutton <chutton1@qwest.net>  
 Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

Arthur:

You might want to check out some of the copper foil specifically made for RFI / EMI shielding. It's made for exactly the purpose you have in mind.

I bet you'll find plenty of it if you do a web search. One company is :  
<http://www.adhesivesresearch.com/catalog/indust.htm>

It's pretty widely used in the industry so I'm sure you'll have no problem finding a distributor.

Chuck

refmon wrote:

> Hi Arther et al,

- > Regarding item #3, I've been having great luck with the 3" copper foil found
- > in garden stores as anti-slug barriers. I don't have the specs on hand,
- > but, even though it's very flimsy in the open, it is equally malleable,
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- > In the case of digital displays, I've been using 350 x 350 stainless steel
- > mesh with great RF and optical results.

> best luck--

> John Collins

>

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> To: <Premium-Rx@kahuna.sdsu.edu>

> Sent: Sunday, July 08, 2001 02:18 PM

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> > very fragile and it melts when touched with a soldering iron! I also  
> > found a roll of much thicker tin foil. I can in fact solder to it, but  
> > its a little too thick for my liking. The soldering requirement was to  
> > use a bit of shielding inside the preamp, and also for a shield cover  
> > after the unit is tuned up. The best I could do in the craft stores  
> > today was a 16"x20" sheet of 80 mesh woven copper. I think this will do

> > the trick, especially if I double it and back up the edges with aluminum  
> > strip stock to give a positive contact. My question is how well will  
> > this copper screen (cloth) perform at RF? M instinct tells me it's OK,  
> > but I wonder if anyone else has a different idea?

> >  
> > Arthur Shulman  
> >  
> >

-----  
Date: Sun, 08 Jul 2001 18:50:46 -0700  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: Re: RF screening

I've gotten nice, new copper screening, strapping, plate, and bars from my local metal recycler. It is amazing how much new stock ends up going to recyclers in bits and pieces and occasionally in rolls. He charges me twice what he gets from the next processor up the chain but it is still a bargain.

I've also picked up copper foil tape at Boeing Surplus in Seattle for \$2.00 per roll in 1/2 and 3/4 inch width.

Terry O'Laughlin

-----  
Date: Sun, 08 Jul 2001 19:45:45 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Re: Prem-Rx: Re: RF screening

You can get 0.003 inch x 3.0 inch copper foil from Metal and Cable Corp, Inc. 9337 Ravenna Road, Unit C, P.O. Box 117, Twinsburg, OH 44087. The 3 inch strip I purchased was 25 feet long and sold for \$30.45, plus \$5.40 shipping.

Terry O'Laughlin wrote:

> I've gotten nice, new copper screening, strapping, plate, and bars from my  
> local metal recycler. It is amazing how much new stock ends up going to  
> recyclers in bits and pieces and occasionally in rolls. He charges me  
> twice what he gets from the next processor up the chain but it is still a  
> bargain.

> I've also picked up copper foil tape at Boeing Surplus in Seattle for \$2.00  
> per roll in 1/2 and 3/4 inch width.

> Terry O'Laughlin

-----  
Date: Sun, 08 Jul 2001 22:30:28 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: Re: RF screening

Rob & Terri Sherwood wrote:

> You can get 0.003 inch x 3.0 inch copper foil from Metal and Cable Corp, Inc.

> Terry O'Laughlin wrote:

> > I've gotten nice, new copper screening, strapping, plate, and bars from my  
> > local metal recycler.

Thanks to all who replied. I was looking for 'Arts & Crafts' type foil, cuz it's easy to cut & bend, but I learned from all your suggestions. None of them had occurred to me - like I was thinking with blinders on. Of course, it's Sunday, & I think my local metal recycler is likely at the beach!

But I learned my lesson, & I'll keep an open mind for the next flea market.. (I always pass on the copper stuff, thinking I don't know what I need 'till I need it!)

Does no one remember McKay Dymek?? They made a great (honest - not a tinkertoy) HF passive preselector - like the Johnson Matchbox but for receivers, and down to 100 khz with BIG caps & coils inside!

Arthur Shulman

-----  
Date: Sun, 08 Jul 2001 22:52:54 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

John Miles wrote:

> > 2.) Is anyone familiar with this device (MAR-6) or can they point me  
> > to application notes for fine tuning the performance?

> "What I'd like to find is a MMIC amp with substantially lower gain and NF and  
> the same or higher IP3 than the MAV-11.

John, your point well taken. Realizing the IMD problem in advance, I set out to build a narrowband amp tuned just for 137.5mhz & vicinity. I would not dream of a useable end result if I had gone broadband. I have a problem with local FM & TV stations, so it was essential to provide some front-end selectivity. Input is two parallel tuned circuits with loose inductive coupling. Feedline to tap at 1 turn of six, and MAR-6 input thru 330 pf cap to 1 turn of six. Result so far - output seems clean - no IMD.

> I'd suggest donating the 608 to your local yacht club as a  
> marine-immobilization implement. If you're on a budget, you can't do better  
> than  
> the option-323 HP8640B generators that show up on ebay all the time.

Yes, I agree, but the 608 has to do for the moment. I intend to ask for advice when I am ready to move up to the 8640, and I thank you for offering the suggestion. What is option 323? What is the usual price you have seen these going for? Does HP still maintain these units?

> > 3) Problem. It seems that it is not possible to find copper foil for  
> > shield-making purposes on a Sunday in Hamilton, Ontario.

> Maybe try a piece of copper-clad board from Radio Shack?

RS doesn't stock anything big enough around me. And it's a pain cutting it, compared to scissors! But mainly, it had to be flexible, to clear some components & HV points that project above the rim of the enclosure. And do you recall the buffer amp that sticks up an inch above the cover plate (inside it, actually)? Clever design, wot?

Arthur Shulman

-----  
Date: Sun, 08 Jul 2001 21:58:52 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

Comment about the 8640 option 323 inserted below:



A D Shulman DDS wrote:

> John Miles wrote:

> > > 2.) Is anyone familiar with this device (MAR-6) or can they point me  
> > > to application notes for fine tuning the performance?  
> >  
> > "What I'd like to find is a MMIC amp with substantially lower gain and NF and  
> > the same or higher IP3 than the MAV-11.

>  
> John, your point well taken. Realizing the IMD problem in advance, I set out to  
> build a narrowband amp tuned just for 137.5mhz & vicinity. I would not dream of  
> a useable end result if I had gone broadband. I have a problem with local FM &  
> TV stations, so it was essential to provide some front-end selectivity. Input  
> is two parallel tuned circuits with loose inductive coupling. Feedline to tap at  
> 1 turn of six, and MAR-6 input thru 330 pf cap to 1 turn of six. Result so far -  
> output seems clean - no IMD.

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> > marine-immobilization implement. If you're on a budget, you can't do better  
> > than  
> > the option-323 HP8640B generators that show up on ebay all the time.

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> when I am ready to move up to the 8640, and I thank you for offering the  
> suggestion. What is option 323? What is the usual price you have seen these  
> going for? Does HP still maintain these units?

The option 323 does not have the locking (stabilizing) circuit. Thus if you turn it on a few hours ahead of time, drift will not be a big issue. It would be like an 8640A, but with a digital readout instead of slide-rule dial.

> > > 3) Problem. It seems that it is not possible to find copper foil for  
> > > shield-making purposes on a Sunday in Hamilton, Ontario.  
> >  
> > Maybe try a piece of copper-clad board from Radio Shack?  
> >

> RS doesn't stock anything big enough around me. And it's a pain cutting it,  
> compared to scissors! But mainly, it had to be flexible, to clear some  
> components & HV points that project above the rim of the enclosure. And do you  
> recall the buffer amp that sticks up an inch above the cover plate (inside it,  
> actually)? Clever design, wot?

> Arthur Shulman

-----  
Date: Sun, 08 Jul 2001 20:01:03 -0700  
From: Nick Hall-Patch <nhp@ieee.org>  
Subject: Re: Prem-Rx: Varactor based preselector

At 02:15 PM 7/8/01 -0600, you wrote:

> Years ago my design engineer, Mr. George Heidelman (K8RRH), solved

- > multi-multi 160 meter contesting problems with J. W. Miller loopstick
- > coils. (Miller 2000 seems like the right number, but it has been a long
- > time ago.) One station was running on the 1.8 MHz segment and the other
- > just below 2 MHz. We needed 40 dB or more ejection of the opposite segment,
- > plus the good front end of the Drake radios we were using. Two coils were
- > used, inductively coupled, spaced about 3 inches apart, and tuned with about
- > 25 pF on 160 meters. The input/output taps were way down on the coil, so I
- > would say the top of the coil was in 30k ohm to 100k ohm range. They were
- > sharp enough on 160 to have to be retuned every 10 kHz. They are really
- > sharp down in the the broadcast band, actually significantly attenuating the
- > high frequency audio of the MW stations on the low end of the band, with a 3
- > dB bandwidth of maybe as low as 5 or 6 kHz. I designed and manufactured
- > several filters using this brute force technology for Alascom who needed to
- > receive marine signals in the 2.2 MHz range while rejecting their own
- > transmitter signals some 100 kHz away.

This system works very well, and was independently developed about 20 years ago by Don Moman, VE6JY, I believe. The coils were not available when I looked a couple of years ago, but I had reasonable success winding my own coils on ferrite rods from Amidon. The loopsticks are much easier to use because the slug adjustment allows easy alignment, but you can optimize the system by adjusting turns on a ferrite rod if you have enough patience.

All your other comments about using varactors for tuning high impedance parallel tuned circuits in a nasty RF environment are spot on, Rob.

73,

Nick

\*\*\*\*\*  
 Nick Hall-Patch Victoria, B.C. Canada  
 e-mail: Nick\_Hall-Patch@telus.net (mail forwarded via nhp@ieee.org)  
 \*\*\*\*\*

-----  
 Date: Mon, 9 Jul 2001 01:11:49 -0700  
 From: "John Miles" <jmiles@pop.net>  
 Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening  
 > John, your point well taken. Realizing the IMD problem in advance, I set out to  
 > build a narrowband amp tuned just for 137.5mhz & vicinity. I would not dream of  
 > a useable end result if I had gone broadband. I have a problem with local FM &  
 > TV stations, so it was essential to provide some front-end selectivity. Input  
 > is two parallel tuned circuits with loose inductive coupling. Feedline to tap at  
 > 1 turn of six, and MAR-6 input thru 330 pf cap to 1 turn of six. Result so far -  
 > output seems clean - no IMD.

Sounds like you're in business with the MAR-6, then. I've used them as 145 MHz IF stages in a wideband 10 GHz transceiver, and they do work very well as long as there's good filtering in the circuit. Wouldn't change a thing if you're getting the results you need!  
 > Yes, I agree, but the 608 has to do for the moment. I intend to ask for advice  
 > when I am ready to move up to the 8640, and I thank you for offering the  
 > suggestion. What is option 323? What is the usual price you have seen these  
 > going for? Does HP still maintain these units?

Option 323 is the military, "ruggedized" version. Usually comes in a hideous yellow armored cabinet. Same as the normal 8640B except, as Rob notes, no lock button. This is no great loss -- as Rob says,

you just leave the thing on for an hour or two before making any measurements where stability is critical.

They seem to sell in the \$200-\$300 range from what I've seen. I've seen them even cheaper at hamfests. They're a couple hundred bucks cheaper than the standard 8640B because of the omitted lock feature, and because they're uglier and bulkier and heavier. :) Most everything else, as far as I'm aware, is the same. Nice attenuator, super-clean output, nice frequency readout (although I seem to recall there's no external input jack for the counter on the 323 unit, is that right, Rob?)

HP still sells parts for the 8640B, but they're very expensive. I think I paid \$40 for a single knob for mine a couple of years ago. 8-( You wouldn't want to use HP for maintenance with the prices they charge, but the good news is that it's relatively cheap to keep a parts unit around.

> And do you

> recall the buffer amp that sticks up an inch above the cover plate (inside it,

> actually)? Clever design, wot?

Yeah, I didn't realize you needed to bend it. You can always build a "doghouse" out of copper clad board, but probably the roofing-supply store is your best bet for the flexible stuff. Good luck, it's a shame somebody decided to "lose" the cover!

- -- jm

-----  
Date: Mon, 9 Jul 2001 08:13:49 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: The RACAL saga continues

Hi All, I tried the software with my RA6830 6.4 kHz base band output and found the program actually has an offset input to center the carrier. The display was similar to my MA2232 tuning aide. The display update rate was a bit slower then the MA2232 but 20 Hz was ok. You have to service Bill Gates running Windows.

I put out some bogus information about the RA6830 synthesizer. My spectrum analyzer had a sick minus 12.6 volt supply that made me think I had ripple problems causing 120 Hz side bands at minus 45 dBC. The real number was minus 75 dBC and adding the 8 volt regulator dropped them another 6 dB. Sorry everybody!

I looked up the LO filter data. Starting at the preamplifier output the resonant frequency section 1 : 28.6 MHz, 2: 39.1 MHz, 3: 39.1 MHz, 4: 38.6 MHz. This data is from the RA6830 LO amplifier but I'm pretty sure the 6790 is similar. Many software versions allow key pad operation down to 100 kHz and tune to zero. You might want to see where you are with the 6790 first then decide where to tune the filter. I have not checked the radio at the low end yet. fc

> -----Original Message-----

> From: John Hoopes [SMTP:jdhatti@hom.net]

> Sent: Friday, July 06, 2001 8:39 PM

> To: Carcia, Frank A. HS

> Cc: Premium-RX@kahuna.sdsu.edu

> Subject: RE: Prem-Rx: The RACAL saga continues

> Thanks for sending that program Frank! I don't have a base band output on  
> the 6790 but I think the audio out would do the same thing. Should make a  
> nice spectrum analyzer. This gives me an idea. I've wanted to build an  
> earth dipole and listen for, or look for in this case, the 76HZ CW signal  
> the Navy uses or used to communicate with submarines. I read about one of  
> the Navy's transmitter sites in Pop Com magazine a few years ago. I think  
> it was located in Michigan. The antenna was a 50 mile long wire that ran  
> through the woods and the transmitter was a 2 megawatt job that sent a 3  
> character CW message over a 15 minute period. This was supposedly to tell

> the subs to come near the surface and receive additional intel via VLF  
> transmission. I Wonder if they still use ELF? This spectrum software would  
> be ideal for this. Hmmm, I smell another project:-).

> 73  
> John

> PS. I was at Wal Mart and they were having a sale on mixers. I wonder if  
> the 6790's mixer could stand to be upgraded. After all, replacing those  
> fets gets to be very time consuming.

> At 10:10 AM 7/6/01 -0400, you wrote:  
> > Hi,  
> > This way you will be able to tell if the transformer is going away  
> > or the filter is sucking the power down.  
> > I think the sections of the filter are resonated in the high thirty  
> > MHz range. If they could be pulled a half MHz lower  
> > you will be in business as far as the LO is concerned. My guess is  
> > the filter is taking over. The 6830 has a series  
> > cap in the input protection circuit. It is a self healing cap. A  
> > series cap will be a problem as the frequency is decreased.  
> > I think this was new stuff used for the 6830. There is a input  
> > limiter and static arrester. I bet this was added after  
> > the 6790 mixer blow out problems to improve the design.  
> > The fourth of July I decided to cook. the weather wasn't that great  
> > to go to the beach so the kids and I made a batch  
> > of meat balls for some soul food. By the time we were done I had the  
> > kitchen pass to repair my spectrum analyzer  
> > and my wife didn't have to cook for 2 days. The mess was big enough  
> > that she was happy to see us move on to other projects.  
> > Good luck getting yours.  
> > fc

> >  
> > -----Original Message-----

> >  
> > From: John Hoopes [SMTP:jdhatti@hom.net]  
> >  
> > Sent: Friday, July 06, 2001 12:41 PM  
> >  
> > To: Carcia, Frank A. HS  
> >  
> > Subject: RE: Prem-Rx: The RACAL saga continues  
> >

> >  
> > Hi Frank,  
> >

> >  
> > I see what you mean. I guess I need to try terminating the filter and  
> > the  
> >  
> > drivers with 50ohms and check the response again. I'm trying to find  
> > some

> >  
> time to get back to the shop and run some more tests but the wife has  
> me  
> >  
> doing other things. Ugggh. I can't wait to go back to work so I can get  
> >  
> some rest!  
> >

> >  
> 73  
> >  
> John  
> >

> >  
> At 08:01 AM 7/6/01 -0400, you wrote:  
> > > > Hi John,  
> > > > I will look over the weekend. The 6830 also has the load resistors  
> > > > at the output of the transformer. My only point is as you go lower  
> > > > in  
> > > > frequency the primary of the transformer will decrease in reactance  
> > > > and place a lower impedance load on the filter. That may cause  
> > > > pass band ripple in the filter response. I'm sure the resistors are  
> > > > there to force the load on the filter because the mixer fets are  
> > > > just caps for gate load on the transformer. The gates only want  
> > > > to see the voltage swing. Without the resistors the impedance  
> > > > would be all over the place and the filter would not be properly  
> > > > terminated. fc

> > > >  
> > > >  
> -----Original Message-----  
> > > >  
> From: John Hoopes [SMTP:jdhatti@hom.net]  
> > > >  
> Sent: Thursday, July 05, 2001 8:43 PM  
> > > >  
> To: Carcia, Frank A. HS  
> > > >  
> Subject: RE: Prem-Rx: The RACAL saga continues  
> > > >

> > > >  
> At 05:04 PM 7/5/01 -0400, you wrote:  
> > > >  
> > Hi John,  
> > > >  
> > Maybe you could disconnect the mixer from the amplifier and  
> > > >  
> > terminate the amplifier. This way you won't see the effects  
> of the  
> > > >  
> > transformer reactance dropping off at the low end. The changing  
> load

> > > >  
> > on the filter may effect the response and ripple. Just a thought  
> > > >  
> > if you see the level dive after the filter. Somewhere I have  
> the  
> > > >  
> > resonant frequency of each filter section. Let me know if  
> you need  
> > > >  
> > it and I will get it to you.      fc

> > > >  
> >  
> > > >  
> Hi Frank,  
> > > >

> > > >  
> If I understand the circuitry correctly, the LO transformer is a  
> >  
> broadband  
> > > >  
> transmission line with a 1:4 Z ratio unbalanced to balanced. One  
> thing  
> >  
> the  
> > > >  
> RACAL engineers did in this particular instance, was to terminate  
> the  
> > > >  
> output of the broadband transformer with two 100 ohm resistors from  
> >  
> each  
> > > >  
> output to ground otherwise they would see just the capacitive gates  
> of  
> >  
> the  
> > > >  
> DMOS Fets. So essentially, the complimentary drivers are working  
> into a  
> > > >  
> resistive load. I don't know how this affects what the elliptical  
> >  
> filter  
> > > >  
> sees because it is looking into the pre-driver for the pair which I  
> > > >  
> imagine  
> > > >  
> is close to 50 ohms. So I think in response to your sugestion, it  
> has  
> >  
> been

> > > >  
> already done, but I'm not really sure. Judging by what I just said,  
> do  
> >  
> you  
> > > >  
> think I should still try this? Maybe terminate the output of the  
> >  
> filter?  
> > > >

> > > >  
> If you could find those frequencies, it would be appreciated. Thanks  
> > > >  
> Frank.  
> > > >

> > > >  
> 73  
> > > >  
> John  
> > > >  
> >

-----  
Date: Mon, 9 Jul 2001 08:23:08 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: 6790/GM Connectors

Check out [visualradios.com](http://visualradios.com) Colin Trass has them and provides information to purchase them.  
fc

> -----Original Message-----

> From: Shaun Merrigan [SMTP:smerriga@compusmart.ab.ca]  
> Sent: Sunday, July 08, 2001 12:55 AM  
> To: Premium Rx List Posting  
> Subject: Prem-Rx: 6790/GM Connectors  
> Hi Everyone,

> Does anyone know where to find (surplus?) the round serial connector  
> on 6790/GM's so equipped? I have sourced them out new, but  
> American Connector has a \$50 minimum, there has been no answer from  
> William Perry, and that just about exhausts my source list :-)

> The numbers are:

> MS3476116-26S  
> MS3417-16N

> TIA.

> Shaun

> -----  
> Shaun Merrigan  
> smerriga@compusmart.ab.ca

-----  
Date: Mon, 9 Jul 2001 09:35:12 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: DA-100 / MAR-6 / RF screening

I have built very sharp VHF filters using the tuned cavity out of an old frequency counter. I removed the guts on each port and installed a couple of probes for power in and out. The Q is very high with a small probe. I built a very nice one that covers 50 MHz to 1 GHz. fc

> -----Original Message-----

> From: Rob & Terri Sherwood [SMTP:rob@sherweng.com]

> Sent: Sunday, July 08, 2001 11:59 PM

> To: A D Shulman DDS

> Cc: John Miles; Premium-Rx@kahuna.sdsu.edu; John Miles

> Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

> Comment about the 8640 option 323 inserted below:

> A D Shulman DDS wrote:

> > John Miles wrote:

> >

> > > 2.) Is anyone familiar with this device (MAR-6) or can they point

> > me

> > > to application notes for fine tuning the performance?

> > >

> > > "What I'd like to find is a MMIC amp with substantially lower gain and

> > NF and

> > > the same or higher IP3 than the MAV-11.

> >

> > John, your point well taken. Realizing the IMD problem in advance, I

> > set out to

> > build a narrowband amp tuned just for 137.5mhz & vicinity. I would not

> > dream of

> > a useable end result if I had gone broadband. I have a problem with

> > local FM &

> > TV stations, so it was essential to provide some front-end selectivity.

> > Input

> > is two parallel tuned circuits with loose inductive coupling. Feedline

> > to tap at

> > 1 turn of six, and MAR-6 input thru 330 pf cap to 1 turn of six. Result

> > so far -

> > output seems clean - no IMD.

> >

> > > I'd suggest donating the 608 to your local yacht club as a

> > > marine-immobilization implement. If you're on a budget, you can't do

> > better

> > > than

> > > the option-323 HP8640B generators that show up on ebay all the time.

> > >

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> > advice

> > when I am ready to move up to the 8640, and I thank you for offering the

> > suggestion. What is option 323? What is the usual price you have seen



> these  
 > > going for? Does HP still maintain these units?  
 > >  
 > The option 323 does not have the locking (stabilizing) circuit. Thus if  
 > you turn it  
 > on a few hours ahead of time, drift will not be a big issue. It would be  
 > like an  
 > 8640A, but with a digital readout instead of slide-rule dial.  
 > >  
 > > > > 3) Problem. It seems that it is not possible to find copper foil  
 > for  
 > > > > shield-making purposes on a Sunday in Hamilton, Ontario.  
 > > >  
 > > > Maybe try a piece of copper-clad board from Radio Shack?  
 > > >  
 > > >  
 > > RS doesn't stock anything big enough around me. And it's a pain cutting  
 > it,  
 > > compared to scissors! But mainly, it had to be flexible, to clear some  
 > > components & HV points that project above the rim of the enclosure. And  
 > do you  
 > > recall the buffer amp that sticks up an inch above the cover plate  
 > (inside it,  
 > > actually)? Clever design, wot?  
 > >  
 > > Arthur Shulman

-----  
 Date: Mon, 9 Jul 2001 08:39:37 -0400  
 From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
 Subject: RE: Prem-Rx: DA-100 / MAR-6 / RF screening

I bet Home Depot has copper flashing and you can repair the roof with the extra 49 feet. fc

> -----Original Message-----

> From: John Miles [SMTP:jmiles1@speakeasy.net]  
 > Sent: Sunday, July 08, 2001 3:59 PM  
 > To: Premium-Rx@kahuna.sdsu.edu  
 > Cc: John Miles  
 > Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening  
 > > 2.) Is anyone familiar with this device (MAR-6) or can they point me  
 > > to application notes for fine tuning the performance? Minicircuits  
 > > provides next to no information nor any circuit examples. I was very  
 > > careful to operate the device within the recommended DC and it seems  
 > > quite stable.  
 > >

> I'm running a Diamond discone antenna rated for 25-1300 MHz service on my  
 > second-floor balcony. It's connected to my R7000 with 50 feet of RG-8,  
 > which loses a few dB toward the high end of the range. So I built a  
 > preamp  
 > to mount at the antenna to overcome the coax loss.

- > My first attempt at the preamp used a MAR-6. What I really wanted was
- > something with even lower NF than the MAR-6 and much less gain, but
- > nothing
- > I had in the junk box qualified. Unfortunately, the MAR-6's 1-dB
- > compression point is only + 2 dBm, with IP3 about 12-14 dB higher as is
- > usual
- > for these parts. Combined with the fact that its gain is way too high for
- > preamp service (18+ dB at 500 MHz), the IMD was awful. It's a better
- > mixer
- > than it is an amplifier. :)
  
- > I switched over to the MAV-11, which has a slightly worse NF (3.6 dB) and
- > only 12 dB of gain (still more than I wanted), with a 1 dB point of 17.5
- > dBm
- > and an IP3 of 30 dBm. This took care of almost all of the IMD problems --
- > I
- > no longer heard pager signals and TV stations every 5 MHz or so. Although
- > there are one or two spots where faint IMD problems are still evident,
- > they're no longer intolerable.
  
- > After a few weeks of listening with this setup, there really are very,
- > very
- > few signals that can be heard only with the preamp on. (I used a couple
- > of
- > really nice 18 GHz relays from an old HP8555A plugin to switch the preamp
- > in
- > and out of the circuit on demand). The conventional wisdom in the VHF/UHF
- > monitoring community is that broadband preamps are not really worth their
- > salt as long as you have decent-quality coax runs of reasonable length,
- > and
- > I'm inclined to agree.
  
- > Like all the Mini-Circuits parts, there aren't really any "app notes" for
- > the MAR-, MAV- and ERA-series MMICs that I know of. They are truly
- > idiot-proof 50-ohm black boxes for the most part, without any glaring
- > stability problems or twitchiness. Just solder them down to bare copper
- > board with short interconnections, and what you see on the data sheet is
- > what you'll get.
  
- > What I'd like to find is a MMIC amp with substantially lower gain and NF
- > and
- > the same or higher IP3 than the MAV-11. Anyone know of such a beast? All
- > the higher-performance parts seem to require external biasing and
- > Z-matching
- > networks that aren't really suitable for plug-and-play broadband use.
  
- > > Readers will recall my travail with the HP-608F a week ago. I mentioned
- > > that the only part still not found was the amp/osc shield cover. A week
- > > of using the generator indicates that accurate measurement below 1 uv
- > > output is not possible due to signal bleedthrough. This leakage also
- > > precludes the use of a external precision attenuator I would like to use
- > > for some measurements, as the leakage will predominate over the direct
- > > signal feed to the receiver. The completion of the preamp raised the
- > > point that I am unable to accurately peak the input tuned circuits. I

> > have to 'knife' them so any movement might affect stray pickup. I  
> > decided that finding the old shield couldn't wait so I plan to make one.  
> >

> I'd suggest donating the 608 to your local yacht club as a  
> marine-immobilization implement. They really aren't worth the electricity  
> and gravity they consume. If you're on a budget, you can't do better than  
> the option-323 HP8640B generators that show up on ebay all the time.  
> Trust  
> me, I've spent years using both 608s and 8640s. There is no  
> comparison....  
> even without the infamous locking feature you'll get 10X better stability,  
> and you won't have to relevel the darned thing every few MHz.

> > 3) Problem. It seems that it is not possible to find copper foil for  
> > shield-making purposes on a Sunday in Hamilton, Ontario.

> Maybe try a sheet of bare copper-clad board from Radio Shack?

> -- jm

-----  
Date: Mon, 9 Jul 2001 08:50:56 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: DA-100 / MAR-6 / RF screening

The 608 has a nice pair of handles to attach the chain. I have to admit mine is still under the bench and working. My first job in electronics was tuning VHF radios with a HP608 as a source. The first 3 hours in the morning was not very productive chasing the generator all over the place. fc

> -----Original Message-----

> From: John Miles [SMTP:jmiles@pop.net]

> Sent: Monday, July 09, 2001 4:12 AM

> Cc: Premium-Rx@kahuna.sdsu.edu

> Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

> > John, your point well taken. Realizing the IMD problem in advance, I

> set

> out to

> > build a narrowband amp tuned just for 137.5mhz & vicinity. I would not

> dream of

> > a useable end result if I had gone broadband. I have a problem with

> local

> FM &

> > TV stations, so it was essential to provide some front-end selectivity.

> Input

> > is two parallel tuned circuits with loose inductive coupling. Feedline

> to

> tap at

> > 1 turn of six, and MAR-6 input thru 330 pf cap to 1 turn of six. Result

> so

> far -

> > output seems clean - no IMD.

> >

> Sounds like you're in business with the MAR-6, then. I've used them as  
> 145  
> MHz IF stages in a wideband 10 GHz transceiver, and they do work very well  
> as long as there's good filtering in the circuit. Wouldn't change a thing  
> if you're getting the results you need!

> > Yes, I agree, but the 608 has to do for the moment. I intend to ask for  
> advice  
> > when I am ready to move up to the 8640, and I thank you for offering the  
> > suggestion. What is option 323? What is the usual price you have seen  
> these  
> > going for? Does HP still maintain these units?  
> >

> Option 323 is the military, "ruggedized" version. Usually comes in a  
> hideous yellow armored cabinet. Same as the normal 8640B except, as Rob  
> notes, no lock button. This is no great loss -- as Rob says, you just  
> leave  
> the thing on for an hour or two before making any measurements where  
> stability is critical.

> They seem to sell in the \$200-\$300 range from what I've seen. I've seen  
> them even cheaper at hamfests. They're a couple hundred bucks cheaper  
> than  
> the standard 8640B because of the omitted lock feature, and because  
> they're  
> uglier and bulkier and heavier. :) Most everything else, as far as I'm  
> aware, is the same. Nice attenuator, super-clean output, nice frequency  
> readout (although I seem to recall there's no external input jack for the  
> counter on the 323 unit, is that right, Rob?)

> HP still sells parts for the 8640B, but they're very expensive. I think I  
> paid \$40 for a single knob for mine a couple of years ago. 8-( You  
> wouldn't want to use HP for maintenance with the prices they charge, but  
> the  
> good news is that it's relatively cheap to keep a parts unit around.

> > And do you  
> > recall the buffer amp that sticks up an inch above the cover plate  
> (inside  
> it,  
> > actually)? Clever design, wot?

> Yeah, I didn't realize you needed to bend it. You can always build a  
> "doghouse" out of copper clad board, but probably the roofing-supply store  
> is your best bet for the flexible stuff. Good luck, it's a shame somebody  
> decided to "lose" the cover!

> -- jm

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Date: Mon, 9 Jul 2001 08:34:19 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Varactor based preselector

I read somewhere that 2 varactors in series takes care of high voltage swing on varactors. Two devices cathode to cathode cancels the voltage swing. Now it will take more diodes in parallel to get a high "C". This is a common problem in oscillators. You will get highest performance with bread slicers and rob some gears out of the hanger queen R390A. I like the 4 section bread slicer used in the old HP331 audio distortion analyzer. It would make a nice preselector. fc

> -----Original Message-----

> From: Rob & Terri Sherwood [SMTP:rob@sherweng.com]

> Sent: Sunday, July 08, 2001 4:15 PM

> To: Charles Hutton; Magne, Larry

> Cc: PREMIUM-RX@kahuna.sdsu.edu

> Subject: Re: Prem-Rx: Varactor based preselector

> I have some experience in this area, so here is some info / thoughts:

> Varactors work OK below 10 MHz, but deteriorate in Q on higher  
> frequencies.

> While testing several tuned active antennas for Passport to Worldband  
> Radio

> last year, some manufacturers used real tuning capacitors and others the  
> much cheaper varacap with DC tuning pots. In all cases the gain and Q  
> fell

> off dramatically above 20 MHz with the varacap, and if one unsoldered the  
> varacap and substituted a good quality variable capacitor, the gain and  
> tuning sharpness improved.

> Being a JRC dealer, I have tested their input circuits over the years. In  
> the early days the 515 used varacaps and a DC pot as a preselector for the  
> MW broadcast band. This worked quite well, and should encourage you to  
> try

> a MW preselector. On the higher bands the 515 used fractional octave  
> bandpass filters. The 525 did away with the MW manually tuned  
> preselector,

> and kept the fractional octave front end for HF. The 535 used a tracking  
> preselector with varactors, and the Q was pretty good on the lower bands  
> as

> one would expect. But by the time one got to 20 MHz, the Q was not very  
> impressive, and it almost approximated a 1/2 octave filter. I swept the  
> front end with a tracking generator / spectrum analyzer to get this data.

> So if one is expecting significant rejection on 20 meters and above of  
> signals say 1 MHz away with the tracking preselector, you will be  
> disappointed.

> We use the MVAM varactors to tune the VCO in our SE-3 sync detector. Of  
> course this is operating a 455 kHz, so they work quite well though there  
> are

> six of them in parallel to tune plus / minus 5 or 6 kHz at this frequency.

> The reason it takes so many to tune such a limited span of frequency is we  
> have to put the varacaps across the 10% tap on the oscillator coil to keep  
> the AC voltage low enough so it does not exceed the DC VCO signal as the  
> highest capacitance point. The top of the coil has an oscillator signal

> in

- > the 30 volt P-P range! In your case, the issue will be the RF signal
- > level
- > coming into the diode. Lets say you go with a 10:1 turns ratio with a
- > 100:1
- > impedance ratio. (5K at the top of the coil) Active antennas like the
- > Dressler or the Wellbrook easily put out close to 0 dBm on local MW
- > signals. (10 stations at -10 dBm is typical, and 3 stations above -5 dBm
- > is
- > not unusual.) Who needs 0 dBm blasting their radio, but this is what I
- > consistently measure on an HP 3585A spectrum analyzer. Who knows what you
- > will get with a long wire and a tuner. My shunt fed 70 foot tower with a
- > 20
- > and 40 meter beam on top tuned for 160 meters just blasts most radios out
- > of
- > the water on 160 meters with MW overload. So lets say you have 0 dBm
- > coming
- > into your preselector at the 50 ohm tap. At the 5000 ohm point you will
- > have over 2 volts RMS or about 6 volts peak to peak. That will limit your
- > DC tuning range on the high C end of the varacap to less than one would
- > expect. Typically Motorola will spec the delta C range from 2 volts to 12
- > volts, or something like that. But you will not be able to go anywhere
- > near
- > that low in DC voltage or the diodes will start conducting on the RF.
  
- > Your worries about IMD are probably valid, but I have never done any
- > measurements from that aspect.
  
- > Years ago my design engineer, Mr. George Heidelman (K8RRH), solved
- > multi-multi 160 meter contesting problems with J. W. Miller loopstick
- > coils. (Miller 2000 seems like the right number, but it has been a long
- > time ago.) One station was running on the 1.8 MHz segment and the other
- > just below 2 MHz. We needed 40 dB or more ejection of the opposite
- > segment,
- > plus the good front end of the Drake radios we were using. Two coils were
- > used, inductively coupled, spaced about 3 inches apart, and tuned with
- > about
- > 25 pF on 160 meters. The input/output taps were way down on the coil, so
- > I
- > would say the top of the coil was in 30k ohm to 100k ohm range. They were
- > sharp enough on 160 to have to be retuned every 10 kHz. They are really
- > sharp down in the the broadcast band, actually significantly attenuating
- > the
- > high frequency audio of the MW stations on the low end of the band, with a
- > 3
- > dB bandwidth of maybe as low as 5 or 6 kHz. I designed and manufactured
- > several filters using this brute force technology for Alascom who needed
- > to
- > receive marine signals in the 2.2 MHz range while rejecting their own
- > transmitter signals some 100 kHz away.
  
- > The practical problem with this approach was you had to keep all metal 6
- > to
- > 8 inches away from these loop sticks, or their Q was ruined. So this made
- > for a rather large metal rack mount enclosure for Alascom. For ham use, a

- > wooden box was fine, but not very "professional". I don't know if these
- > coils are still made today, but if you really wanted fantastic Q and
- > performance with a manually tuned system, these did the job. In today's
- > computer controlled world, you could have some DC servos tune the
- > mechanical
- > capacitors. Of course now we are entering into a modern "Boat Anchor"
- > type
- > of product that only R-390A fans would appreciate. Hi Hi.
  
- > If you "stole" the JRC NRD-515 front end for MW coverage, I think you
- > would
- > be happy with the results.
  
- > 73, Rob Sherwood, NC0B.
  
- > Charles Hutton wrote:
  
- > > Guys:
- > >
- > > I keep thinking about the idea of making a MW varactor tuned preselector
- > > that automatically tunes to the correct frequency. I'd use a DAC to
- > > drive the varactor and an ADC to calibrate it. In other words, it would
- > > have a test mode where you tune it to the test frequencies, the
- > > preselector reads the required voltage via the ADC, and then (in normal
- > > mode) outputs that voltage via the DAC.
- > >
- > > I have several little questions about this..... First of all, I
- > > learned recently that the NRD535 has an auto-tracking preselector. In
- > > the same breath, the person that mentioned that also said it wasn't
- > > though of as working very well. That's all he could say. So, can anyone
- > > tell me how the NRD535 implemented this and why it didn't set the world
- > > on fire???
- > >
- > > There are only a couple of varactors (MVAM series and one other whose
- > > number is at work) I know about that have enough capacitance to do this
- > > job, and they have rather limited Q factors. Are there others available,
- > > or does this not become a real issue?
- > >
- > > And lastly, what can I expect for the IMD performance of a varactor
- > > based unit? If it is likely to be so-so at best, perhaps I'd be better
- > > off using a regenerative preselector where careful design could yield
- > > better selectivity and IMD.
- > >
- > > Chuck

-----  
 Date: Mon, 09 Jul 2001 11:03:01 -0400  
 From: A D Shulman DDS <dentist@nornet.on.ca>  
 Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

- "Carcia, Frank A. HS" wrote:  
 > I have built very sharp VHF filters using the tuned cavity out of an old  
 > frequency counter.  
 Frank, I like your sense of humour!!!!

No junk counters here to try this. My tech junkbox went to the dumpster years ago. But I wish I had some of those silvered cavities that used to come six to a chassis on Motorola (was that the 80D model?) premium vacuum tube mobiles.

Tried Home Depot but all they had was aluminum & galvanized steel for flashing.

With great foresight, HP thoughtfully provided the handles on the 608 to save some of us the trouble of keeping a weight set for workouts.

Also, for those techs who might be a little disoriented (?) for the first three hours on a Monday am, and, needing a little extra assistance to keep the floor steady, I'm sure the handles have served well. (personal observation in my own shop!)

Cheers

Arthur

-----  
Date: Mon, 9 Jul 2001 12:02:33 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: DA-100 / MAR-6 / RF screening

Hi, I still see some of the converter modules used in HP counters at Ham Radio flea markets. The cavities used in communication systems had limited tuning range. The cavities used in old Nixie counters diode mixed harmonics of ten MHz with the incoming signal to produce an IF of less than 10 MHz for the counter to count. These cavities had a large tuning range sliding a probe into a sleeve to form a variable capacitor. I just recently put the one I have across a 8753D network analyzer to see if I could make a wide range oscillator. The phase shift looked like a problem over a wide frequency. I was going to connect a MMIC to the in and out and see if it would work. Again the phase shift over frequency changed my mind. I have found another cavity from a old RADAR test set that tunes from 25 to 125 MHz as an oscillator. I plan to take out the tube and install a U310 FET. I hope to use it as a LO source for the home brew RX and eliminate the synthesizer. The lead screw is very fine and the cavity is solid heavy wall brass with lots of silver. In 608 days we used to celebrate hump night on Wednesday. Thursday morning would be a time when human stability was an issue and an generator excuse. ARC73 was the radio if I remember. fc

> -----Original Message-----

> From: A D Shulman DDS [SMTP:dentist@nornet.on.ca]  
> Sent: Monday, July 09, 2001 11:03 AM  
> To: Carcia, Frank A. HS  
> Cc: 'Rob & Terri Sherwood'; John Miles; Premium-Rx@kahuna.sdsu.edu  
> Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening  
> "Carcia, Frank A. HS" wrote:

> > I have built very sharp VHF filters using the tuned cavity out of an old  
> > frequency counter.

> Frank, I like your sense of humour!!!!

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> years  
> ago. But I wish I had some of those silvered cavities that used to come  
> six to a  
> chassis on Motorola (was that the 80D model?) premium vacuum tube mobiles.

> Tried Home Depot but all they had was aluminum & galvanized steel for  
> flashing.



> With great foresight, HP thoughtfully provided the handles on the 608 to  
> save  
> some of us the trouble of keeping a weight set for workouts.

> Also, for those techs who might be a little disoriented (?) for the first  
> three  
> hours on a Monday am, and, needing a little extra assistance to keep the  
> floor  
> steady, I'm sure the handles have served well. (personal observation in my  
> own  
> shop!)

> Cheers

> Arthur

-----  
Date: Mon, 09 Jul 2001 13:37:52 -0700  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: HP-8640B vs AN/USM-323

> Option 323 is the military, "ruggedized" version. Usually comes in a  
> hideous yellow armored cabinet. Same as the normal 8640B except, as Rob  
> notes, no lock button.  
> ... because they're uglier and bulkier and heavier.

I own a 8640B opt 1,2,3 and an opt 323. If you take the opt 323 out of the big ugly yellow box, the opt 323 is in the same HP case as the 8640B, including top and bottom panels. The front panel is larger but that can be trimmed. The guts will fit in a 19" rack as it comes. The yellow case is for transit and it is heavy and rugged. Inside the case the 323 is the same size, shape and weight as the regular 8640.

The 323 also has a cleaner output because it does not have the lock circuit. Even with the lock turned off, I find that the output of the 8640B is not as clean as the opt 323.

As an owner of both units, I think the 323 is unfairly maligned. It is a great signal generator in its own right.

Terry O'Laughlin

-----  
Date: Mon, 9 Jul 2001 14:55:30 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: HP-8640B vs AN/USM-323

Hi, Do you know what the 323 modification is. I just checked my generator on the repaired spectrum analyzer and was unimpressed with the crud modulation in both modes. fc

> -----Original Message-----

> From: Terry O'Laughlin [SMTP:terryo@wort-fm.terracom.net]

> Sent: Monday, July 09, 2001 4:38 PM

> To: Premium-Rx@kahuna.sdsu.edu

> Subject: Prem-Rx: HP-8640B vs AN/USM-323

>

> > Option 323 is the military, "ruggedized" version. Usually comes in a  
> > hideous yellow armored cabinet. Same as the normal 8640B except, as Rob  
> > notes, no lock button.

> > ... because they're uglier and bulkier and heavier.

- >
- > I own a 8640B opt 1,2,3 and an opt 323. If you take the opt 323 out of
- > the
- > big ugly yellow box, the opt 323 is in the same HP case as the 8640B,
- > including top and bottom panels. The front panel is larger but that can
- > be
- > trimmed. The guts will fit in a 19" rack as it comes. The yellow case is
  
- > for transit and it is heavy and rugged. Inside the case the 323 is the
- > same size, shape and weight as the regular 8640.
  
- > The 323 also has a cleaner output because it does not have the lock
- > circuit. Even with the lock turned off, I find that the output of the
- > 8640B is not as clean as the opt 323.
  
- > As an owner of both units, I think the 323 is unfairly maligned. It is a
- > great signal generator in its own right.
  
- > Terry O'Laughlin

-----  
Date: Mon, 09 Jul 2001 12:07:37 -0700  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: HP-8640B vs AN/USM-323

At 01:37 PM 7/9/01 -0700, Terry O'Laughlin wrote:

- > The 323 also has a cleaner output because it does not have the lock
- > circuit. Even with the lock turned off, I find that the output of the
- > 8640B is not as clean as the opt 323.

I think they should be the same with the lock off. It's possible that as the numerous filter components in one or the other drift over time there would be degradation in the harmonic suppression etc. but this is a function of age more than what they started out as. I could be wrong on this. I did have an L fail in one of my 8640Bs so got rather familiar with the insides of one of the big aluminum boxes inside the sucker.

Also, the 8640B has the extra half digit and the X10 X100 controls on the freq display. The settable frequency resolution is thus substantially improved (e.g. 10Hz from 0.5 to 4MHz on the 323 vs 0.1Hz from .5 to 1MHz and 1.0Hz to 16MHz, etc.) For most users this doesn't matter at all! My 323 had internal pulse and FM well - may be standard in the 323, but the 8640 Opt 001 has variable AM mod from 40Hz to 600kHz.

- > As an owner of both units, I think the 323 is unfairly maligned. It is a
- > great signal generator in its own right.

I agree completely. I started with a 323, but then picked up a couple of 8640Bs and decided to keep one of these as my bench instrument - more because of the size issue than anything else. I just sold the 323 (on that auction place) and am currently selling the other 8640B. Unless I can find a fully synthesized sig gen at bargain store prices, the 8640B (or the 323 for that matter) do everything I am likely to want to do.

Jan Skirrow

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----

Date: Mon, 9 Jul 2001 16:00:59 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: RA6790 Mixer

Hey John, I just looked up your FET VS the SD5000 and the SD 5000 used in the 6830 has zeners on the gates. I wonder if a surface mount zener could be mounted between the gate and source leads of the FETs. No extra board area required just a little height. I see the SD215 has internal zeners. I bought some of these from Future Active electronics a year ago just in case. Maybe it just needs a different part number installed. Both parts have a 2 NS turn on time and same reverse transfer C .2 pF. I bet the 6790 would work better around static with a simple part change. fc

> -----Original Message-----

> From: john hoopes [SMTP:jdhatti@hom.net]  
> Sent: Monday, July 09, 2001 3:05 PM  
> To: 'Carcia, Frank A. HS'  
> Subject: RE: Prem-Rx: The RACAL saga continues  
> Me too Bro! Once when I was in the service, I was talking on a field  
> phone  
> trying to call back to the shop for some info. All of a sudden I'm on my  
> butt and all I could think off was "Who hit me?" I felt like I was hit by  
> a  
> baseball bat when lighting came in on the phone line. It got a women in  
> the  
> next tent over. We both got the rest of the day off!

> -----Original Message-----

> From: Carcia, Frank A. HS  
> [mailto:francis.carcia@hs.utc.com]  
> Sent: Monday, July 09, 2001 2:53 PM  
> To: 'john hoopes'  
> Subject: RE: Prem-Rx: The RACAL saga continues  
> Last week a lightning bolt came down in the neighbors yard not 50  
> feet from one end  
> of the antenna and trashed the side of a 30 foot maple. That end of  
> the antenna is at 80 feet. I was surprised. One time the tower was hit  
> and the guy next door was sanding the bed of a pickup truck he was  
> restoring. His buddy went flying when a big arc came off  
> the bed and hit his wedding ring. So far God has spared the stuff in  
> the shack,  
> I DO BELIEVE.

-----  
Date: Mon, 9 Jul 2001 17:20:00 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: W&J 8711-1

- --part1\_110.215e811.287b7a00\_boundary Content-Type: text/plain; charset="US-ASCII" Content-Transfer-Encoding: 7bit

Hi, I am used to RA1792s and things that do not have too many buttons, but I have recently got a W&J8711-1, which has so many buttons, I am confused. Can anyone tell me how to resolve AM properly? Sounds easy, set filter to 7KHz, select AM, enter frequency, sit back and listen. But the recovered audio is unintelligible. Tuning up, for example, the station freq. is 12,095,000, but if you go to 12,095,500, perfect audio. I thought that maybe one L.O. was out a bit, but then I discovered that you get perfect audio by tuning down as well, eg. to 12,094,500. Then I found that perfect audio will

result by entering the right freq, 12,095,000 and selecting ISB, or USB, or LSB. I must be doing something wrong, incidentally, the set passes BITE. Any offers?? Dave

--part1\_110.215e811.287b7a00\_boundary Content-Type: text/html; charset="US-ASCII" Content-Transfer-Encoding: 7bit

> < FONT FACE= arial,Helvetica  
> < FONT SIZE= 2  
> Hi,  
> I am used to RA1792s and things that do not have too many buttons, but I  
> have recently got a W&J8711-1, which has so many buttons, I am confused. Can  
> anyone tell me how to resolve AM properly? Sounds easy, set filter to 7KHz,  
> select AM, enter frequency, sit back and listen. But the recovered audio is  
> unintelligible. Tuning up, for example, the station freq. is 12,095,000, but  
> if you go to 12,095,500, perfect audio. I thought that maybe one L.O. was out  
> a bit, but then I discovered that you get perfect audio by tuning down as  
> well, eg. to 12,094,500. Then I found that perfect audio will result by  
> entering the right freq, 12,095,000 and selecting ISB, or USB, or LSB. I must  
> be doing something wrong, incidentally, the set passes BITE. Any offers?? Dave  
>

--part1\_110.215e811.287b7a00\_boundary--

-----  
Date: Mon, 09 Jul 2001 20:29:54 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: Prem-Rx: Fwd: Re: RA6790 Mixer

Funny you should mention that. I just replaced the fets in the mixer and all is well now. However, in my junk box, I have a SD 5000. What I'm going to do is etch a tiny pc board to put it on with some tiny turrets to attach the leads. When I blow another A2 I'll pop that one in and see how it goes. I originally bought it for a home brew mixer project but I never got around to it. Good idea though!

>  
> At 04:00 PM 7/9/01 -0400, you wrote:  
> Hey John,  
> I just looked up your FET VS the SD5000 and the SD 5000 used in the  
> 6830  
> has zeners on the gates. I wonder if a surface mount zener could be  
> mounted  
> between the gate and source leads of the FETs. No extra board area  
> required just a little height. I see the SD215 has internal zeners. I  
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> needs a different  
> part number installed. Both parts have a 2 NS turn on time and same  
> reverse  
> transfer C .2 pF. I bet the 6790 would work better around static  
> with a simple part change.  
> fc  
>  
>  
>  
> -----Original Message-----  
>  
> From: john hoops [SMTP:jdhatti@hom.net]  
>  
> Sent: Monday, July 09, 2001 3:05 PM  
>  
> To: 'Carcia, Frank A. HS'  
>  
> Subject: RE: Prem-Rx: The RACAL saga continues  
>  
>  
> Me too Bro! Once when I was in the service, I was talking on a field  
>  
> phone  
>  
> trying to call back to the shop for some info. All of a sudden I'm on my  
>  
> butt and all I could think off was "Who hit me?" I felt like I was hit by  
>  
> a  
>  
> baseball bat when lighting came in on the phone line. It got a women in  
>  
> the  
>  
> next tent over. We both got the rest of the day off!

>

>

> -----Original Message-----

>

> From: Carcia, Frank A. HS

>

> [mailto:francis.carcia@hs.utc.com]

>

> Sent: Monday, July 09, 2001 2:53 PM

>

> To: 'john hoopes'

>

> Subject: RE: Prem-Rx: The RACAL saga continues

>

>

> Last week a lightning bolt came down in the neighbors yard not 50

>

> feet from one end

>

> of the antenna and trashed the side of a 30 foot maple. That end of

>

> the antenna is at 80 feet. I was surprised. One time the tower was hit

>

> and the guy next door was sanding the bed of a pickup truck he was

>

> restoring. His buddy went flying when a big arc came off

>

> the bed and hit his wedding ring. So far God has spared the stuff in

>

> the shack,

>

> I DO BELIEVE.

>

>

-----

Date: Mon, 9 Jul 2001 20:34:48 -0400  
From: "Peter Gottlieb" <peter@newyorknerd.com>  
Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening

No, Home Depot only carries junk aluminum. You have to go to either a real roofer or a real lumber yard.

Peter

- ----- Original Message -----

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
To: "John Miles" <jmiles1@speakeasy.net>  
> ; <Premium-Rx@kahuna.sdsu.edu>  
> Cc: "John Miles" <jmiles@pop.net>  
> Sent: Monday, July 09, 2001 8:39 AM  
Subject: RE: Prem-Rx: DA-100 / MAR-6 / RF screening  
> I bet Home Depot has copper flashing and you can repair the roof  
> with the  
> extra 49 feet. fc

> > -----Original Message-----

>> From: John Miles [SMTP:jmiles1@speakeasy.net]  
> > Sent: Sunday, July 08, 2001 3:59 PM  
> > To: Premium-Rx@kahuna.sdsu.edu  
> > Cc: John Miles  
>> Subject: Re: Prem-Rx: DA-100 / MAR-6 / RF screening  
> >  
> > > 2.) Is anyone familiar with this device (MAR-6) or can they point me  
> > > to application notes for fine tuning the performance? Minicircuits  
> > > provides next to no information nor any circuit examples. I was very  
> > > careful to operate the device within the recommended DC and it seems  
> > > quite stable.  
> > >  
> > >  
> > I'm running a Diamond discone antenna rated for 25-1300 MHz service on my  
> > second-floor balcony. It's connected to my R7000 with 50 feet of RG-8,  
> > which loses a few dB toward the high end of the range. So I built a  
> > preamp  
> > to mount at the antenna to overcome the coax loss.  
> > >  
> > My first attempt at the preamp used a MAR-6. What I really wanted was  
> > something with even lower NF than the MAR-6 and much less gain, but  
> > nothing  
> > I had in the junk box qualified. Unfortunately, the MAR-6's 1-dB  
> > compression point is only +2 dBm, with IP3 about 12-14 dB higher as is  
> > usual  
> > for these parts. Combined with the fact that its gain is way too high for  
> > preamp service (18+ dB at 500 MHz), the IMD was awful. It's a better  
> > mixer  
> > than it is an amplifier. :)  
> > >  
> > I switched over to the MAV-11, which has a slightly worse NF (3.6 dB) and  
> > only 12 dB of gain (still more than I wanted), with a 1 dB point of 17.5  
> > dBm

> > and an IP3 of 30 dBm. This took care of almost all of the IMD problems --  
> > I  
> > no longer heard pager signals and TV stations every 5 MHz or so. Although  
> > there are one or two spots where faint IMD problems are still evident,  
> > they're no longer intolerable.  
> >  
> > After a few weeks of listening with this setup, there really are very,  
> > very  
> > few signals that can be heard only with the preamp on. (I used a couple  
> > of  
> > really nice 18 GHz relays from an old HP8555A plugin to switch the preamp  
> > in  
> > and out of the circuit on demand). The conventional wisdom in the VHF/UHF  
> > monitoring community is that broadband preamps are not really worth their  
> > salt as long as you have decent-quality coax runs of reasonable length,  
> > and  
> > I'm inclined to agree.  
> >  
> > Like all the Mini-Circuits parts, there aren't really any "app notes" for  
> > the MAR-, MAV- and ERA-series MMICs that I know of. They are truly  
> > idiot-proof 50-ohm black boxes for the most part, without any glaring  
> > stability problems or twitchiness. Just solder them down to bare copper  
> > board with short interconnections, and what you see on the data sheet is  
> > what you'll get.  
> >  
> > What I'd like to find is a MMIC amp with substantially lower gain and NF  
> > and  
> > the same or higher IP3 than the MAV-11. Anyone know of such a beast? All  
> > the higher-performance parts seem to require external biasing and  
> > Z-matching  
> > networks that aren't really suitable for plug-and-play broadband use.  
> >  
> > > Readers will recall my travail with the HP-608F a week ago. I mentioned  
> > > that the only part still not found was the amp/osc shield cover. A week  
> > > of using the generator indicates that accurate measurement below 1 uv  
> > > output is not possible due to signal bleedthrough. This leakage also  
> > > precludes the use of a external precision attenuator I would like to use  
> > > for some measurements, as the leakage will predominate over the direct  
> > > signal feed to the receiver. The completion of the preamp raised the  
> > > point that I am unable to accurately peak the input tuned circuits. I  
> > > have to 'knife' them so any movement might affect stray pickup. I  
> > > decided that finding the old shield couldn't wait so I plan to make one.  
> > >  
> > >  
> > I'd suggest donating the 608 to your local yacht club as a  
> > marine-immobilization implement. They really aren't worth the electricity  
> > and gravity they consume. If you're on a budget, you can't do better than  
> > the option-323 HP8640B generators that show up on ebay all the time.  
> > Trust  
> > me, I've spent years using both 608s and 8640s. There is no  
> > comparison....  
> > even without the infamous locking feature you'll get 10X better stability,  
> > and you won't have to relevel the darned thing every few MHz.  
> >



> > > 3) Problem. It seems that it is not possible to find copper foil for  
> > > shield-making purposes on a Sunday in Hamilton, Ontario.  
> >  
> > Maybe try a sheet of bare copper-clad board from Radio Shack?  
> >  
> > -- jm  
> >

-----  
Date: Mon, 09 Jul 2001 20:35:18 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: Prem-Rx: HP8551 ?

Greetings most distinguished group:

I have a dilemma...again. I blew the mixer diode in my HP8551B SpecAn. I have no idea what it is or where to get one. If anyone could help me out I sure would appreciate it. Better yet, if someone has an extra one and they are willing to part with it I would gladly pay cold, hard cash for one.

Regards John

-----  
Date: Mon, 09 Jul 2001 22:44:30 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: 6790GM

I am quite pleased with my Racal since you have overhauled it. All the Premium-RX members who need 6790GM service should feel very comfortable sending their prize possession to you for TLC.

Could you answer a question about how you fixed the terrible popping of the AGC on SSB? I would not have thought replacing the front end board would have had anything to do with the ticking / overshoot issue. Now I am not saying it will never pop on a strong signal AGC charge up, but it is 1000% better than it was.

A quick sensitivity measurement on SSB (10 dB S+ N/N) came up with an 0.4 uV reading, with the IF gain backed off a bit so the total gain does not come up 6 to 8 dB when you tune away from the signal. Interestingly enough, however, when I put a Mini Circuits splitter on the Wellbrook antenna I am reviewing, and did A / B comparisons on very weak signals between the Racal and my R-9000, they could both hear equally well. The 9000 measures 0.15 uV, but has a very different AGC threshold and less total gain. When the SSB signals got really down in the noise, I had to turn the volume control on the 9000 up full, but did not have to touch the Racal gain which was only open about 20%.

Thanks for the custom audio output jack on the rear. This is the first time I have ever listened to the stock audio instead of only through the SE-3. Of course on AM the SE-3 is the only way to go, but on SSB the internal audio feeding a Drake MS-7 is top notch.

73, Rob Sherwood, NC0B

-----  
Date: Tue, 10 Jul 2001 07:28:15 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: [Fwd: [Fwd: Prem-Rx: HP-8640B vs AN/USM-323]]

This is a multi-part message in MIME format. - -----DDD525DDCFE267EF49385388  
Content-Type: text/plain; charset= us-ascii Content-Transfer-Encoding: 7bit

FYI from my Agilent metrology friend. He worked in HP service center in Denver for many years in the 70s and 80s.

- -----DDD525DDCFE267EF49385388 Content-Type: message/rfc822 Content-Transfer-Encoding: 7bit Content-Disposition: inline

Return-Path: <gbus@qwest.net

> Received: from dnvrpop4.dnvr.uswest.net (dnvrpop4.dnvr.uswest.net [206.196.128.6]) by supernova.dimensional.com (8.11.2/8.11.2) with SMTP id f6AAKrj00959 for <rob@sherweng.com>; Tue, 10 Jul 2001 04:20:53 -0600 (MDT) Received: (qmail 85697 invoked by uid 0); 10 Jul 2001 10:20:52 -0000 Received: from dnvrds1gw14poolb16.dnvr.uswest.net (HELO qwest) (63.228.85.16) by dnvrpop4.dnvr.uswest.net with SMTP; 10 Jul 2001 10:20:52 -0000 Date: Tue, 10 Jul 2001 04:22:06 -0600 Message-ID: <002001c1092a\$2ea00540\$0300000a@qwest.qwest.net

From: "gbus" <gbus@qwest.net

To: "Rob & Terri Sherwood" <rob@sherweng.com

Subject: Re: [Fwd: Prem-Rx: HP-8640B vs AN/USM-323] 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 4.72.3110.1 X-MimeOLE: Produced By Microsoft MimeOLE V4.72.3110.3 X-Mozilla-Status2: 00000000

I don't believe it either. In any case I'll take the 8640B any day over option 323, which many times was stored on its back so that eventually after many years the silicon grease in the cavity oscillator slowly seeped toward its back, getting in between two metal plates, causing the cavity to stop oscillating, first at some spots on the band, and eventually the whole band.

- -----Original Message-----

From: Rob & Terri Sherwood <rob@sherweng.com

To: Burnett, Greg <gbus@qwest.net

> Date: Monday, July 09, 2001 12:54 PM

Subject: [Fwd: Prem-Rx: HP-8640B vs AN/USM-323]

I don't believe the statement that the option 323 is cleaner than a B model with the lock off. What do you think?

- -----DDD525DDCFE267EF49385388--

Date: Tue, 10 Jul 2001 12:38:53 -0700

From: "Dennis Polito W6DEN" <cloudhopper@home.com

Subject: Prem-Rx: WJ8618/A

This is a multi-part message in MIME format.

- =====\_NextPart\_000\_0007\_01C1093D.47615260 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

Hello to the list.

Well, here goes a shot in the dark. I have a rather "dark" WJ8618/A = 20-1000 MHZ receiver that I would dearly love to repair. You guessed it, = I am singing the usual "no documentation blues". I even tried WJ, they = would be happy to sell me a manual but they don't have one either. = Perhaps some kind soul on the list can help out, I will even kiss your = ring and I won't leave a dead horse in your bed.

regards= 20 Dennis Polito

- -----=\_NextPart\_000\_0007\_01C1093D.47615260 Content-Type: text/html; charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

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> <STYLE
> </STYLE
> </HEAD
> <BODY bgColor= 3D#ffffff
> <STRONG
> Hello to the = list.</STRONG
> <STRONG
> Well, here goes a shot in the = dark. I have= 20 a rather "dark" WJ8618/A 20-1000 MHZ receiver
that I would dearly love = to= 20 repair. You guessed it, I am singing the usual "no documentation
blues". = I even= 20 tried WJ, they would be happy to sell me a manual but they don't have =
one= 20 either. Perhaps some kind soul on the list can help out, I will even = kiss your= 20 ring and I
won't leave a dead horse in your bed.</STRONG
> <STRONG
> regards </STRONG
> <STRONG
> Dennis= 20 Polito</STRONG
>
>
```

- -----=\_NextPart\_000\_0007\_01C1093D.47615260--

-----  
Date: Wed, 11 Jul 2001 10:07:18 -0700  
From: "Kurt" <radiouser@uswest.net>  
Subject: Prem-Rx: RA6790GM

To the Group I have recently picked up a 6790/GM that is in need of assistance. The sensitivity is down, about 1uv for 10db s/n in cw. There is digital noise when tuning at the 5 MHz increments but goes away when tuning off of these frequencies. Also there is strong birdies at 5 MHz increments through out the tuning range of the receiver. I have a manual on order but it is not arrived. From reading the reflector it seems that Gary Winger does good work. Does anyone have his email address? I believe this receiver has potential so I want to give it a shot before moving on to the next one. Any and all suggestions welcome. Thanks, Kurt Holbrook

-----  
Date: Thu, 12 Jul 2001 00:26:35 -0500  
From: "herschel p mccullough" <w5hpm@airmail.net>  
Subject: Prem-Rx: any intrest ?????

any interest if we had new overlays made for the 590a receiver ...

-----  
Date: Thu, 12 Jul 2001 23:51:36 -0700  
From: Charles Hutton <chutton1@qwest.net>  
Subject: Prem-Rx: Litz Source

I'm in need of a small quantity (25 feet or so) of Litz wire in the 40 - 46 AWG range (higher the better) and preferably of the served variety although I wouldn't turn up my nose at the unserved stuff.

Anybody know a dealer that will sell small quantities of the stuff? I'd take a 100' roll if that's what it takes.....

Chuck

---

Date: Fri, 13 Jul 2001 13:01:06 EDT  
From: DAVEI NBHAM@aol.com  
Subject: Re: Prem-Rx: Litz Source

In a message dated 7/13/01 12:59:37 AM Central Standard Time, chutton1@qwest.net writes:

<< I'm in need of a small quantity (25 feet or so) of Litz wire in the 40 - 46 AWG range (higher the better) and preferably of the served variety although I wouldn't turn up my nose at the unserved stuff.

Anybody know a dealer that will sell small quantities of the stuff? I'd take a 100' roll if that's what it takes.....

Chuck

> \*\*\*\*\* Chuck, Amidon 800-679-3184 used to have it. They sold it by the foot. No minimum order. Let us know how you make out with this.  
Dave

---

Date: Mon, 16 Jul 2001 21:03:22 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: Racal 6790/xx

Good evening all, Now having a 6790GM in my hands I am seeking information about the background history, and where better to ask than on this reflector. As I see it, the 6790 was a direct derivative in a stripped down version of the 1792, and presumably made to satisfy an American contract for the R-2174/URR. Is this correct, or am I barking up the wrong tree?? I have to say, bearing in mind the recent comments about "deafness" in the 6790 that I can see the grounds for the comments. Considering its heritage, the 6790 does seem like a poor cousin to the RA 1792. All observations welcome. 73 John Wilson

- ----- John Wilson Stone Hill Kings Nympton Umberleigh Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

---

premium-rx-digest Wednesday, July 18 2001 Volume 01 : Number 142

---

Date: Mon, 16 Jul 2001 17:37:47 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: Re: Measurements et al

John Wilson wrote:

> Hi Rob,  
> I was going to post you on several unconnected matters but I'll start with  
> the 6790. I am disappointed!! I now understand the recent comments about  
> "deafness" because I measure the 3dB noise floor (in SSB, 3.4kHz) at -129dBm  
> which is not great.

REPLY: I wonder why so many are deaf? One of mine was bad, and the other is worse. Gary fixed the one.

- > The phase noise performance within 20kHz of signal is
- > also not great, and when I compare the RA-1792 (at the same time and on the
- > same bench) it is clear that the '1792 is a better performer on all counts.

REPLY: Agree that the phase noise is not wonderful. Will do a full test next time I have the lab set up to test some other radio, like the Icom 756 series.

- > Noise floor (m.d.s.) is -133dBm and phase noise is much better. I was
- > therefore surprised when I compared the two schematics to find that the 6790
- > is a clear derivative of the '1792, even down to identical component values
- > in the various filter networks around the first mixer. I have a personal
- > thread of thought that maybe the pursuit of strong signal handling has gone
- > too far, and that Chuck may indeed have a point when he extols the virtues
- > of weak signal handling instead of strong signal handling (even though his
- > measurement methods are decidedly incorrect). I shall expand on this in an
- > article for Short Wave Magazine, but will send you my text when it's
- > written.

REPLY: How does one get a copy of this magazine? I have never seen it.

- > I find the audio from the 6790 quite good, but it's still a bit
- > gritty due to the fact that Racal use the amplitude limited AM carrier as
- > the injection into the SSB product detector and demodulate AM as DSB. It
- > still takes a lot to beat a properly designed AM detector. If you get a
- > chance to try the Rohde & Schwarz EK-07 you will never accept anything less
- > (apart from the SE-3 of course).

REPLY: I only measured the sensitivity, and it was about 0.4 uV with the IF gain backed off a bit. I did not measure the noise floor yet. As I mentioned the other day in a post, the I was hearing about as well as the R9000, which measured out at 0.15 uV with its 2.4 kHz filter. The leakage around the Racal's filters is terrible. I did very little listening on AM, (and did not know they used a syncrophase detector), but it did sound good on SSB. If you can live with the long AGC speed, the radio has no fatigue factor. If you listen on a modestly slowed down medium, it is somewhat fatiguing, and on fast, for get it. Maybe ok on CW, but I even doubt that.

I tested an 07 many many years ago when I barely knew what I was doing, and was quite confused by the fact that the AGC threshold was about 0.1 uV. With normal testing procedures it would not quiet, and gave a ridiculous value of sensitivity of 10 or 20 uV. Of course that is more common today, with greater experience, from the Racals to the WJs to the Ten-Tec 340. Back off the IF gain a bit and it acts more normal. What I thought I would do one of these days is make the normal sensitivity measurements in SSB mode, and then look at the signal and noise on the 3585A with a resolution bandwidth in the 300 Hz range (or whatever works), and then compare the high total gain radios to a normal ham radio and see how they compare.

- > I noted a reference to the Wellbrook loop antenna in one of your recent
- > postings. I am a great convert to the cause of active loop antennas, and use
- > a Wellbrook sitting on my test bench as a day to day source of signals. I
- > find that its ability to reject the near field noise from my computer and
- > printer quite amazing, and the noise floor is at least 10dB below any other
- > antenna I have around. How are you finding it in your somewhat different MW
- > situation??

REPLY: It does have a good SN ratio, but I think it needs more gain. Another funny thing, while listening on the 18 MHz ham band on Sunday, I could pull the power to the loop and only have the signals drop 10 or 15 dB. Now down at 5 MHz or the MW broadcast band, it dropped more like 50 dB.

I was doing all my comparisons between the custom modified Wellbrook and a 100 HDX. I had Andy Ikin make me one that starts rolling off at 3 MHz, and is down about 10 dB at 1.5 MHz, 20 dB at 1.0 MHz and 30 dB at 0.5 MHz. This helped the terrible overload problem in Denver or Boulder where many signals were above -10 dBm.

Another oddity, if I feed the output into a Drake MN-7 tuner, (pi network) I can pick up as much as 10 dB in signal level, which is puzzling both Andy and me.

I need to mount one way up in the air to see if I can confirm that it does not pickup signals off the coax like the Dressler and RF Systems supposedly do. Certainly the whips put out bigger and bigger signals as they go up in the air.

Last year I had a 20 meter very inverted V at 30 feet as a reference antenna. It always did better than the actives. This year I have an 80 meter dipole at 50 feet fed with 450 ohm over-grown twinlead ladder line. (#14 gage wire). Tuning it with a Johnson KW Matchbox, it does quite well on the bands the Matchbox will tune. It does not seem to hear the weird stuff (man made interference) that the Dressler hears. The Wellbrook does not hear the weird stuff much either, but the signals are way way down compared to the really big wire. I will takes some preamps up with me next weekend. I have an R-7 preamp clone, a 3 MHz high pass filter, and a Mini-Circuits amp that I will play with.

- > The final comment for today is that I checked my venerable Kenwood TS-900
- > against the RA 6790, the RA 1792 and the AR-7030, all at the same time, and
- > the TS-900 beats the pants off everything else when it comes to phase noise
- > performance and minimum discernable signal. I can copy CW right down to the
- > noise floor (-140dBm in 500Hz) in the TS-900 whereas I can't even hear the
- > signal in the other receivers. Drake and Collins had it right all along!!

REPLY: I don't know the TS-900. For weak CW one does really well with an S-Line. It has a nutty AGC, but I have been working on that. It isn't right yet, but it is listenable now.

73, Rob, NC0B

- > 73
- > John

> -----Original Message-----

> From: Rob & Terri Sherwood [mailto:rob@sherweng.com]

> Sent: 16 July 2001 19:15

> To: johnwilson@freezone.co.uk

> Subject: Re: Measurements et al

- > How does yours sound? Since mine was repaired, it sound quite good, though
- > not as good from an AGC standpoint as my R9000.

> John Wilson wrote:

- > > Hi Rob,
- > > I've just started looking at a racal RA-6790GM kindly loaned to me for
- > > magazine review by one of the members of the list. I shall be taking
- > > measurements at 2.2MHz a la Chuckster, and will let you have my findings.
- > > What I'm really waiting for are your measurements on your own 390 when you
- > > get it back!!
- > > 73
- > > John
- > > -----
- > > John Wilson
- > > Stone Hill
- > > Kings Nympton

> > Umberleigh  
> > Devon  
> > EX37 9TR  
> > Tel: 01769 573047  
> > Fax: 01769 574158

-----  
Date: Mon, 16 Jul 2001 23:06:43 -0500  
From: "Joe Watson" <wwatson@mmcable.com>  
Subject: Prem-Rx: Racal RA6790/GM's

This is a multi-part message in MIME format.

- -----=\_NextPart\_000\_000A\_01C10E4B.FA9C5510 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

I have an extra pair of Racal RA6790/GM receivers which have just been = expertly repaired by Dave Wingerd. I would like to sell these within = the group, if possible. If anyone is interested in one or both, please = contact me. They are in very good condition both cosmetically and = operationally. They have full complements of filters.

Thanks.

Joe W5WBR

- -----=\_NextPart\_000\_000A\_01C10E4B.FA9C5510 Content-Type: text/html; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

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> < STYLE

> </STYLE

> </HEAD

> < BODY bgColor= 3D#ffffff

> I have an extra pair of Racal RA6790/GM = receivers= 20 which have just been expertly repaired by Dave Wingerd. I would = like to= 20 sell these within the group, if possible. If anyone is = interested in= 20 one or both, please contact me. They are in very good condition = both= 20 cosmetically and operationally. They have full complements of = filters.

> Thanks.

> Joe

> W5WBR

>

>

- -----=\_NextPart\_000\_000A\_01C10E4B.FA9C5510--

-----  
Date: Tue, 17 Jul 2001 08:01:42 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Racal 6790/xx

SD215 in the mixer will help the blow out problem by adding protected gate FETs.

> -----Original Message-----

> From: John Wilson [SMTP:johnwilson@freezone.co.uk]  
> Sent: Monday, July 16, 2001 3:03 PM  
> To: premium  
> Subject: Prem-Rx: Racal 6790/xx  
> Good evening all,  
> Now having a 6790GM in my hands I am seeking information about the  
> background history, and where better to ask than on this reflector. As I  
> see  
> it, the 6790 was a direct derivative in a stripped down version of the  
> 1792,  
> and presumably made to satisfy an American contract for the R-2174/URR. Is  
> this correct, or am I barking up the wrong tree?? I have to say, bearing  
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> mind the recent comments about "deafness" in the 6790 that I can see the  
> grounds for the comments. Considering its heritage, the 6790 does seem  
> like  
> a poor cousin to the RA 1792. All observations welcome.  
> 73  
> John Wilson

> -----  
> John Wilson  
> Stone Hill  
> Kings Nympton  
> Umberleigh  
> Devon  
> EX37 9TR  
> Tel: 01769 573047  
> Fax: 01769 574158

-----  
Date: Tue, 17 Jul 2001 09:02:26 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Re: Measurements et al

Hi All, Everyone should make sure their radio works per specification before they complain about the poor operation. The 6790 has a Specified noise floor. When there was an application to lower the noise floor an RF amplifier option was added. I notice many user have less than full size antennas. This means a radio with an RF amplifier does a better job. I'm lucky to have a friendly neighbor with a tree that goes up almost 100 feet. That holds up one end of a 250 foot dipole. On the higher bands I use a 12 element LPDA. A .4 micro volt noise figure is just fine under these conditions. Racal radios have resistive power splitters on their IF filter inputs and diode switching on the outputs. This method provides poor ultimate rejection. The filters are actually pretty good in a test fixture. The RA6830 has the same problem that I plan to fix at some point by adding diode switches at the input of the filters. The DF model radio has a 3 filter module that switches both input and output. The rejection is above 80 dB. 3 filters is all I really need. The performance difference is impressive. I have found the input power to the AM demodulator a bit on the high side which is why it sounds better when you back off the IF gain. I think the mixer is near saturation. I bet a small 455 KHz filter ahead of the demodulator will reduce noise and drop the level to a better value. fc

> -----Original Message-----  
> From: Rob & Terri Sherwood [SMTP:rob@sherweng.com]  
> Sent: Monday, July 16, 2001 7:38 PM  
> To: johnwilson@freezone.co.uk; Premium, RX  
> Subject: Prem-Rx: Re: Measurements et al



>

> John Wilson wrote:

> > Hi Rob,

> > I was going to post you on several unconnected matters but I'll start

> > with

> > the 6790. I am disappointed!! I now understand the recent comments about

> > "deafness" because I measure the 3dB noise floor (in SSB, 3.4kHz) at

> > -129dBm

> > which is not great.

> REPLY: I wonder why so many are deaf? One of mine was bad, and the other

> > is

> > worse. Gary fixed the one.

> > The phase noise performance within 20kHz of signal is

> > also not great, and when I compare the RA-1792 (at the same time and on

> > the

> > same bench) it is clear that the '1792 is a better performer on all

> > counts.

> REPLY: Agree that the phase noise is not wonderful. Will do a full test

> > next

> > time I have the lab set up to test some other radio, like the Icom 756

> > series.

> >

> > Noise floor (m.d.s.) is -133dBm and phase noise is much better. I was

> > therefore surprised when I compared the two schematics to find that the

> > 6790

> > is a clear derivative of the '1792, even down to identical component

> > values

> > in the various filter networks around the first mixer. I have a personal

> > thread of thought that maybe the pursuit of strong signal handling has

> > gone

> > too far, and that Chuck may indeed have a point when he extols the

> > virtues

> > of weak signal handling instead of strong signal handling (even though

> > his

> > measurement methods are decidedly incorrect). I shall expand on this in

> > an

> > article for Short Wave Magazine, but will send you my text when it's

> > written.

> REPLY: How does one get a copy of this magazine? I have never seen it.

> > I find the audio from the 6790 quite good, but it's still a bit

> > gritty due to the fact that Racal use the amplitude limited AM carrier

> > as

> > the injection into the SSB product detector and demodulate AM as DSB. It

> > still takes a lot to beat a properly designed AM detector. If you get a

> > chance to try the Rohde & Schwarz EK-07 you will never accept anything

> > less

> > (apart from the SE-3 of course).  
> >

> REPLY: I only measured the sensitivity, and it was about 0.4 uV with the  
> IF  
> gain backed off a bit. I did not measure the noise floor yet. As I  
> mentioned  
> the other day in a post, the I was hearing about as well as the R9000,  
> which  
> measured out at 0.15 uV with its 2.4 kHz filter. The leakage around the  
> Racal's  
> filters is terrible. I did very little listening on AM, (and did not know  
> they  
> used a syncrophase detector), but it did sound good on SSB. If you can  
> live  
> with the long AGC speed, the radio has no fatigue factor. If you listen  
> on a  
> modestly slowed down medium, it is somewhat fatiguing, and on fast, for  
> get it.  
> Maybe ok on CW, but I even doubt that.

> I tested an 07 many many years ago when I barely knew what I was doing,  
> and was  
> quite confused by the fact that the AGC threshold was about 0.1 uV. With  
> normal  
> testing procedures it would not quiet, and gave a ridiculous value of  
> sensitivity of 10 or 20 uV. Of course that is more common today, with  
> greater  
> experience, from the Racals to the WJs to the Ten-Tec 340. Back off the  
> IF gain  
> a bit and it acts more normal. What I thought I would do one of these  
> days is  
> make the normal sensitivity measurements in SSB mode, and then look at the  
> signal and noise on the 3585A with a resolution bandwidth in the 300 Hz  
> range  
> (or whatever works), and then compare the high total gain radios to a  
> normal ham  
> radio and see how they compare.

> >  
> > I noted a reference to the Wellbrook loop antenna in one of your recent  
> > postings. I am a great convert to the cause of active loop antennas, and  
> use  
> > a Wellbrook sitting on my test bench as a day to day source of signals.  
> I  
> > find that its ability to reject the near field noise from my computer  
> and  
> > printer quite amazing, and the noise floor is at least 10dB below any  
> other  
> > antenna I have around. How are you finding it in your somewhat different  
> MW  
> > situation??  
> >

- > REPLY: It does have a good SN ratio, but I think it needs more gain.
- > Another
- > funny thing, while listening on the 18 MHz ham band on Sunday, I could
- > pull the
- > power to the loop and only have the signals drop 10 or 15 dB. Now down at
- > 5 MHz
- > or the MW broadcast band, it dropped more like 50 dB. I was doing all my
- > comparisons between the custom modified Wellbrook and a 100 HDX. I had
- > Andy
- > Ikin make me one that starts rolling off at 3 MHz, and is down about 10 dB
- > at
- > 1.5 MHz, 20 dB at 1.0 MHz and 30 dB at 0.5 MHz. This helped the terrible
- > overload problem in Denver or Boulder where many signals were above -10
- > dBm.
  
- > Another oddity, if I feed the output into a Drake MN-7 tuner, (pi network)
- > I can
- > pick up as much as 10 dB in signal level, which is puzzling both Andy and
- > me.
  
- > I need to mount one way up in the air to see if I can confirm that it does
- > not
- > pickup signals off the coax like the Dressler and RF Systems supposedly
- > do.
- > Certainly the whips put out bigger and bigger signals as they go up in the
- > air.
  
- > Last year I had a 20 meter very inverted V at 30 feet as a reference
- > antenna.
- > It always did better than the actives. This year I have an 80 meter
- > dipole at
- > 50 feet fed with 450 ohm over-grown twinlead ladder line. (#14 gage
- > wire).
- > Tuning it with a Johnson KW Matchbox, it does quite well on the bands the
- > Matchbox will tune. It does not seem to hear the weird stuff (man made
- > interference) that the Dressler hears. The Wellbrook does not hear the
- > weird
- > stuff much either, but the signals are way way down compared to the really
- > big
- > wire. I will takes some preamps up with me next weekend. I have an R-7
- > preamp
- > clone, a 3 MHz high pass filter, and a Mini-Circuits amp that I will play
- > with.
  
- > >
- > > The final comment for today is that I checked my venerable Kenwood
- > TS-900
- > > against the RA 6790, the RA 1792 and the AR-7030, all at the same time,
- > and
- > > the TS-900 beats the pants off everything else when it comes to phase
- > noise
- > > performance and minimum discernable signal. I can copy CW right down to
- > the
- > > noise floor (-140dBm in 500Hz) in the TS-900 whereas I can't even hear

> the  
> > signal in the other receivers. Drake and Collins had it right all  
> along!!  
> >

> REPLY: I don't know the TS-900. For weak CW one does really well with an  
> S-Line. It has a nutty AGC, but I have been working on that. It isn't  
> right  
> yet, but it is listenable now.

> 73, Rob, NC0B

>

> > 73

> > John

> >

> > -----Original Message-----

>> From: Rob & Terri Sherwood [mailto:rob@sherweng.com]

> > Sent: 16 July 2001 19:15

> > To: johnwilson@freezone.co.uk

>> Subject: Re: Measurements et al

> >

> > How does yours sound? Since mine was repaired, it sound quite good,  
> though

> > not as good from an AGC standpoint as my R9000.

> >

> > John Wilson wrote:

> >

> > > Hi Rob,

> > > I've just started looking at a racal RA-6790GM kindly loaned to me for

> > > magazine review by one of the members of the list. I shall be taking

> > > measurements at 2.2MHz a la Chuckster, and will let you have my

> findings.

> > > What I'm really waiting for are your measurements on your own 390 when

> you

> > > get it back!!

> > > 73

> > > John

> > > -----

> > > John Wilson

> > > Stone Hill

> > > Kings Nympton

> > > Umberleigh

> > > Devon

> > > EX37 9TR

> > > Tel: 01769 573047

> > > Fax: 01769 574158

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Date: Tue, 17 Jul 2001 14:26:40 -0700

From: "Greg Bailey" <gbailey@mail.sdsu.edu

Subject: Prem-Rx: Can measuring S/N really be such a mystery???

Gentlemen:

The subject line of this post was sent to me by a fellow member of our List. It is obvious that he, as well as a number of the membership, have the ability and the equipment to accomplish such a measurement, but lack a published standard to use as a comparative benchmark.

When we started this List we formed a number of sub-groups to investigate various areas of interest. I thought that by forming such groups we would save time and thus become more efficient. The result was a DISASTER . . . we were too small to subdivide, and individually too busy to donate time.

So, here we are, the ubiquitous S/N problem. Rippel developed a procedure over the years, Wilson yet another, and Sherwood a third. One of our newer members, representing the ARRL (mtracy@arrl.org) is involved with the question of sensitivity measurement/s. Others have chimed in, including the author of the subject line above.

How about it guys, will someone take the bull by the horns and post a procedure? Naturally, another member will take a technical pot shot at it, but at least it will be a start.

Greg

-----  
Date: Tue, 17 Jul 2001 14:53:27 -0700  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: Can measuring S/N really be such a mystery???

At 02:26 PM 7/17/01 -0700, Greg Bailey wrote:

Greg has issued a worthy challenge ... but I wonder if there is even more to it. For example, it seems that some of the more astonishing sensitivity numbers being tossed around on various lists seem to result from aligning the radio in a somewhat unorthodox (i.e. not in the manual!) way. I've noticed that manufacturer's S/N figures are very conservative which I always thought represented some wiggle room for the performance differences resulting from post-production handling and use. But it's also pretty obvious that the optimized performance of a radio depends on the purpose the radio was designed for, and the published specs represent a judicious tradeoff between different performance parameters. So it is this tradeoff I'd like to know more about. For example, as people on this list have discussed, it seems the focus of performance has swithced from an ability to extract the weakest possible signal from noise to an ability to handle fairly strong signals in a high EMF environment.

I've found a lot of good discussion on this list about performance - noise floor, dynamic response, etc - but am at sea as to how to put it all together. We probably don't want to recreate existing texts - but even here I'd welcome a good pointer to a usable reference that attempts to tie these parameters together in a practical manner.

Jan Skirrow

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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Date: Tue, 17 Jul 2001 22:07:20 -0400  
From: Michael Brown <piggin@mindspring.com>  
Subject: Re: Prem-Rx: Can measuring S/N really be such a mystery???

Hi Jan! I think you are spot on as regards the sensitivity issue. Nanovolt sensitivity combined with 200DB dynamic would be nice...As it is, we all own radios designed for a specific task. Some are for ELINT and SIGINT work. Some were for use in rugged environs, both physical and electronic. The real job here should involve what the operator wants to do...I am a utility monitor for the most part. I am lucky to own a utility radio (3031A). Its performance trade-offs match my needs well. If the members of the group find the radio they own doesn't quite fit the niche they want, that's where the real fun

begins! This is when creative alignment, audio mods, detector mods, etc etc muddy the waters. I would suggest measuring S/N is easy, given the proper equipment. The circus starts when you check your favorite radio and discover it wanting in some way.... Even though it seemed great before! IE I'm sure the 6790GM is a wonderful rig. But I wonder when the line between getting it right and wholesale reengineering begins. Perhaps another radio would be a better starting point? This is what makes this hobby so cool to me. I enjoy viewing equipment from the designers point of view. When I find one that most closely matches my goals I enjoy not only the product, I also enjoy finding someone who sees it my way (Don't we all like that?) Remember.... many of us own military radios, but few of us have wullenweber arrays.... or Rhombic farms. It makes no sense to obsess about getting .08 microvolt noise floors in radios designed for real antennas! Perhaps a better antenna would be in order....

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>

-----  
Date: Wed, 18 Jul 2001 02:22:45 -0400  
From: Bob Milne <[rmilne@cfl.rr.com](mailto:rmilne@cfl.rr.com)>  
Subject: Re: Prem-Rx: Can measuring S/N really be such a mystery???

Hi Greg,

Measuring sensitivity is not a mystery, but it's not necessarily a "one test says it all" situation. You've got AM, CW, SSB, and FM sensitivity. You've got "hard" and "soft" measurement techniques. You're right, that a standard procedure for the group would be a big plus. Since most of the controversy seems to be about AM sensitivity, I'll offer a few of my own comments and a proposed procedure.

John Wilson gave us a really great explanation of the classic way to measure AM sensitivity. After all, AM in 2001 is the same as AM in 1942 (ignoring the overuse of compression/limiting/overmodulation). But even if every radio were measured to that exact same standard, would the numbers really tell you how well you could dig out a weak AM signal? Not necessarily! It's great fun to compare specs on radios and see how this one is .5 microvolts better than that one. But what does that really mean? Remember that old rule-of-thumb--"If the noise level goes up when you connect the antenna, the receiver has all the sensitivity it needs." Of course, if you're using a low output loop antenna, or are in a very quiet DXing location, you need extremely good sensitivity. But I'll bet everybody on this list hears the noise level go up when they connect their antennas, no matter what receiver they use. Yet, some seem to perform better than others. Why is this? It's obviously not "all in the numbers."

I think a good standard for this group would be to forget about 1-kHz modulation for sensitivity tests. Why not modulate the generator with good clean audio from your local AM talk radio station? Then crank up the generator output until you can understand the modulation, and note the generator output. After all, that's what we're all really after. Remember Rob Sherwood's recent comments? "A quick sensitivity measurement on SSB (10 dB S+ N/N) came up with an 0.4 uV reading, with the IF gain backed off a bit so the total gain does not come up 6 to 8 dB when you tune away from the signal. Interestingly enough, however, when I put a Mini Circuits splitter on the Wellbrook antenna I am reviewing, and did A / B comparisons on very weak signals between the Racal and my R-9000, they could both hear equally well. The 9000 measures 0.15 uV, but has a very different AGC threshold and less total gain." Similar scenarios should show up on different receivers in the AM mode--despite their conventional sensitivity specs.

This measurement approach should make for some very interesting (and diverse) sensitivity figures, because now receiver architectures and demodulator performance come into play. And I'd be willing to bet that a lot of boat anchors will exhibit stellar performance when measured this way.

In those old boat anchors EVERY gain stage was a TUNED amplifier. By the time the signal hit the detector, noise was band-limited by the full selectivity of the receiver. Plus, the diode detector was fed with Volts of RF, driving it into its linear region. Contrast that with a lot of Premium Receivers where the mixer feeds mechanical or crystal filters--and then you have tons of IF gain which is not necessarily band-limited. Add to that, synthesizer phase noise, reciprocal mixing, etc., and the plot thickens. Seems to me this is an area that could greatly affect how many microvolts are needed to deliver intelligible audio. (To be fair, I doubt there's a Premium Receiver out there was designed as a "Premium" AM DXing rig.) It would also be very interesting to see how the DSP-based receivers perform under the same circumstances. Anyone on the list with the proper equipment care to give this a try? Yeah, I know determining the level at which you can understand the audio is subjective. But if the same person checks all his receivers, the subjectivity should be consistent. And other testers should get the same relative differences between receivers. Subjectivity aside, this seems to me a more realistic and meaningful sensitivity test.

Also, I think it's fair to say that many modern rigs suffer from excessive IF gain. There was a really interesting article many years ago in (I think) Radio Electronics about "Noise Aligning a Receiver." Unfortunately the article was lost in a flood. But from what I remember, the author took his tube receiver and adjusted the gain of each amplification stage until the noise of the stage preceding it was just audible. He said the end result was an exceptionally quiet receiver, and signals just popped out of the noise when he tuned them in.

Regards.... ....Bob

On Tue, 17 Jul 2001 14:26:40 -0700, you wrote:

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> Greg

-----  
Date: Wed, 18 Jul 2001 08:34:41 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Can measuring S/N really be such a mystery???

hi All, I agree. One addition, It is very easy to add a preamplifier, but it is very hard to improve dynamic range and strong adjacent signal handling. fc

> -----Original Message-----

> From: Bob Milne [SMTP:rmilne@cfl.rr.com]

> Sent: Wednesday, July 18, 2001 2:23 AM

> To: Greg Bailey

> Cc: premium-rx@kahuna.sdsu.edu; mtracy@arrl.org

> Subject: Re: Prem-Rx: Can measuring S/N really be such a mystery???

> Hi Greg,

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> >

> > Greg

-----  
Date: Wed, 18 Jul 2001 18:28:59 +0200

From: "John Wilson" <johnwilson@freezone.co.uk

Subject: RE: Prem-Rx: Can measuring S/N really be such a mystery???

Hey!! I didn't develop a procedure, I refer you to my lifetime in HF communications and the platform on which I stand, which is Guglielmo Marconi and his company for which I worked and which gave me the methodology based on a hundred years of knowledge. As a posting has already said, AM in 2001 is exactly the same as AM in 1920; only the receivers have deteriorated!! I'll certainly volunteer a posting on the subject after a few more contributors have introduced all the relevant topics. Following Bob's point about measurements at 1kHz, it's very true that if I were to fit a 1kHz audio filter in the audio section of a receiver and carry out a single test, that receiver would come out pretty well, and I needn't mention the fact of the filter if I didn't want to. The test would simply be the S/N ratio using a 1kHz modulation frequency. So Bob has raised a fundamental question about measuring intelligibility as well as (or in place of) standard single tone measurements. This is going to run and run. I suggest everyone takes a look at the SINAD concept. John Wilson

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Greg Bailey Sent: 17 July 2001 23:27  
To: Premium Cc: mtracy@arrl.org

Subject: Prem-Rx: Can measuring S/N really be such a mystery???

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Greg

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premium-rx-digest Thursday, July 19 2001 Volume 01 : Number 143

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Date: Wed, 18 Jul 2001 15:15:36 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: Method

Just to clarify, like John Wilson did, Sherwood added one significant change to the test methodology developed by Wes Hayward and the ARRL from the late 70s. We did NOT develop a different methodology. Wes popularized the term noise floor for the amateur community, and probably introduced the term dynamic range to the same ham community. But the League's testing then and until relatively recently only encompassed dynamic range testing at 20 kHz spacing. We all know now that a radio also needs to be tested much closer in than 20 kHz, which usually only tests the front end of the radio. Rob Sherwood, and his design engineer George Heidelman (K8RRH), found in the late 70s that their new Drake R-4Cs fell apart on 160 meters during CW contests, and even when listening on 1801 kHz to a single CW station due to intermod caused by the "beeper / beacon" stations that used to exist just below 1800 kHz.

Since the League said the radio tested well, but in practice it was terrible, we set out to come up with a test that showed what was wrong. That ended up to be the 2 kHz dynamic range test in addition to the 20 kHz test. For the SWL market, and Passport to Worldband Radio, we chose to do 5 kHz testing instead of 2 kHz since the channel spacing on shortwave is normally 5 kHz.

George Heidelman and Rob Sherwood then went on to develop solutions to the dynamic range problems of the R-4C, in addition to other fixes to make the radio a contest and pileup special. Most of this work was done before 1980, though some on going development has continued to this day, such as the solid-state 3rd mixer and the replacement power supply.

I loved John Wilson's comment about radios only getting worse since 1920. Well, a slight exaggeration, but the fact that people are still buying R-390As for big bucks and having several 390A gurus fix them up for around \$700, or hams are spending as much for a used R-4C as they sold new, and then

spending \$500 to \$1000 to put Sherwood mods in them clearly says that modern solid-state radios are less than perfect. Few would go to that much trouble if one could buy a new \$1000 to \$2000 box and approach perfection in a shortwave listening or ham radio pileups.

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Date: Wed, 18 Jul 2001 17:24:59 -0700  
From: John Hoopes <jdhatti@hom.net>  
Subject: Prem-Rx: Test Message. Do not Read

Test

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Date: Wed, 18 Jul 2001 17:48:50 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: case supplier wanted et al.....

--part1\_f4.c99cdb0.28875e42\_boundary Content-Type: text/plain; charset="US-ASCII" Content-Transfer-Encoding: 7bit

Hi, This may be slightly off topic, but I am looking for a desktop case to put a LOWE HF-235 into, the set is standard 19 inch rack mount, but only 2U high, as opposed to the normal 3U high. It only needs to be about 12" deep, I have tried Farnell, RS, Maplin, etc, nothing below 3U. Has anyone in UK got any suggestions, even a S/H one I can refurbish would do. I know the receiver does not come under the title of PREMIUM, but I am having more satisfaction playing with it than I have had for a long time. If you do not like the idea of soiling the list with less than premium receivers, pretend it is a WJ 343, or an EDDYSTONE 6200. Only joking about the premium status, we are all here to help if possible, Incidentally, what is it that makes one receiver stand out as the favourite, I have a few premium receivers, but none of them is my favourite choice for anything really, just tuning around, listening to AM or SSB, etc. How about an attempt at definition?? All the best, Dave

--part1\_f4.c99cdb0.28875e42\_boundary Content-Type: text/html; charset="US-ASCII" Content-Transfer-Encoding: 7bit

> < FONT FACE= arial,Helvetica  
> < FONT SIZE= 2  
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Date: Wed, 18 Jul 2001 15:33:29 -0700  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: Can measuring S/N really be such a mystery???

Hi Bob ...

Good comments Bob! Some additional "thoughts":

At 02:22 AM 7/18/01 -0400, Bob Milne wrote:

- > I think a good standard for this group would be to forget about 1-kHz
- > modulation for sensitivity tests. Why not modulate the generator with
- > good clean audio from your local AM talk radio station? Then crank up
- > the generator output until you can understand the modulation, and note
- > the generator output. After all, that's what we're all really after.

If only! I think your suggestion provides a good test - IF you have several radios in front of you and you want to find out which one is best for you. Tune them all to the same signal (whatever you normally sweat blood to copy) and see which is best and easiest to use for that kind of signal. But most of us haven't the luxury of having all of our dream radios in front of us to chose from!

So, comparing radios between users/applications is difficult. When I first got involved in ham radio back in the dark ages, I and my pals used to compete for those rare DX contacts. I quickly discovered that I just didn't have the ear that some of my friends did. I could sit right beside someone, listening to the same speaker they were listening to. To me it often sounded like somewhat non-random noise; to my pal it was copyable.

Now and then I renovate and sell one of those old-fangled R-390As, and I always state the S/N across the full frequency coverage, and the method used to measure it. Now and then I get asked why my radios won't get the S/N claimed by others. I have no idea. I align my radios according to the manual. I have no idea what someone else is doing. I usually explain that the main reason I do the measurement (and record them) is so that I know how this radio compares with others of the same type that I've worked on, and to provide a benchmark should the radio return for service and alignment in future.

I've had several different high end radios on my bench, and I usually run a quick and dirty S/N test for curiosity sake. Most modern comm radios can't match the R-390A on AM. But most military/intell applications for the past couple of decades haven't been much concerned with AM - especially weak AM. I'm not sure how I'd do a meaningful SSB S/N on a non-SSB radio like the R-390A (suggestions welcome!).

It seems to me that if someone is bragging about how hot their radio is based on S/N, it would be nice to know other measured specs.

It is sooooo arbitrary in many ways. E.g. when I measure the R-390A S/N 10 db down, it is really a strong sounding signal - far from threshold. I usually measure the 3db down signal as well (sometimes called the minimum detectable signal) but this too is quite a strong sounding signal. But put it in the middle of a DX scramble, and it would disappear - other factors would start to become much more important.

Cheers

Jan

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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Date: Wed, 18 Jul 2001 20:10:15 EDT  
From: Ka9p@aol.com  
Subject: Prem-Rx: RA1792 and misc. random noise

RA6790/GM owners with an inferiority complex may wish to check out Telford Electronic's site ( [www.telford-electronics.com](http://www.telford-electronics.com) ) where RA1792's are currently available for a mere 550 pounds sterling, including 17.5% VAT, which you might get back. (hope that's not a breach of the board's sensibilities)

I really mention it only because detailed specs are posted on the site for those interested.

FWIW, my SW-3 (with factory 10 meter coils) gives my GM a run for its money on 10 cw when atmospheric noise is low (and there isn't another signal on the band), but it doesn't mean I plan to trade in the 6790 anytime soon.

Which is why I've got time to start on a 6712A (against my better judgment). I realize its not really premium, but it is kind of a former high end orphan - - does anyone know of a reasonably priced source for documentation for same?

Thanks, really enjoying the measurement thread. Scott

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Date: Wed, 18 Jul 2001 20:54:50 -0400  
From: Michael Brown <[piggin@mindspring.com](mailto:piggin@mindspring.com)>  
Subject: Prem-Rx: Intelligibility testing

Using a program source to test recovered audio is a morass I would not want to wade into. If one person does this test, and selects a radio on this criteria, that radio would be great for that one person. Hearing response varies between individuals enough to make this test worthless as any objective measurement. How about this instead..... Use a progression of frequencies starting at 50hz or whatever and increase in 50 or 100hz increments to see if the audio bandpass is flat. I think using SINAD and testing a LOT of discrettes would uncover the stellar performers. Time consuming.....but it might answer some questions....

-----  
Date: Wed, 18 Jul 2001 23:57:54 -0400  
From: A D Shulman DDS <[dentist@nornet.on.ca](mailto:dentist@nornet.on.ca)>  
Subject: Re: Prem-Rx: Can measuring S/N really be such a mystery???

Greg Bailey wrote:

> Gentlemen:

- > The subject line of this post was sent to me by a fellow member of our List.
- > It is obvious that he, as well as a number of the membership, have the
- > ability and the equipment to accomplish such a measurement, but lack a
- > published standard to use as a comparative benchmark.

Greg et al:

When I first saw this subject broached, I realized that this sort of discussion was exactly what is so appealing to me in this group. The wealth of expertise and experience available here is unlike any communications resource or reference I have ever encountered. Of course this is because I did not follow engineering as a career, or ever work with colleagues of similar pursuits. -- A fact I often regret.

But there is a certain appeal to me to have problems expressed in numerical units. I like to be able to measure, and eventually to compare - exactly what we are talking about here. As a dentist, a sometimes pilot, and a compulsive student of communications lore, I am anxious to learn reasoning and methods to test my own equipment.

I wonder if the SINAD measurements I used to do for VHF/UHF communications gear are applicable to task of measuring AM sensitivity, or better expressed, readability. I recall we used an instrument with which I am sure you are all familiar, called a SinAdder, to adjust for 12 db S/N ratio, then read off

the sig gen uv to find if specs were being met. Does this instrument work for AM provided levels are low enough to avoid AGC action?

How does one read SSB sensitivity effectively, unless one generates an SSB signal?

And yes, I do believe that receivers are in fact designed for the specific purpose intended, whether this is DF, monitoring, ECM, & surveillance, etc. And the corollary for this is that they may (and usually are) less than perfect in a different application. The point was made that we often spend many \$ & hours trying to make a purpose-built receiver perform well in a role for which it was never intended. I myself have done exactly that to most of the gear which I have ever owned; usually with success for the moment, as a learning exercise. But often, on later reflection, I came to realize that the effort expended was out of proportion to the benefits obtained!

So gentlemen, I await your discussion. I am anticipating learning methods and techniques to better understand receiver design and apply it to practical issues.

What indeed makes one premium receiver sound better than another?

Let the discussion begin!

Arthur Shulman

-----  
Date: Wed, 18 Jul 2001 21:27:14 -0700  
From: David Ross <ross@hypertools.com>  
Subject: Re: Prem-Rx: Intelligibility testing

Receiver folks -

Michael Brown wrote:

> Using a program source to test recovered audio is a morass I would not  
> want to wade into. Amen to that - everyone's ear is different. The only way to come up with ground truth here is to put a consistent signal into the receiver and come up with a consistent way to examine the receiver's output.

In the words of Lord Kelvin:

"If you can not measure it, you can not improve it."

"...when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the state of Science..."

(Both Lord Kelvin quotes are From: <http://zapatopi.net/kelvquote.html> )

> ...stuff deleted...

> Use a progression of

> frequencys starting at 50hz or whatever and increase in 50 or 100hz

> increments to see if the audio bandpass is flat. I think using SINAD and

> testing a LOT of discretets would uncover the stellar performers.

Bandpass flatness is a issue completely separate from that of sensitivity. A clean & flat bandpass can really make a radio very enjoyable to listen to, but has little to do with the radio's ability to pick out weak sigs.

SINAD testing takes a lot of subjectivity out of the equation. For a couple of years, I have been tabulating the 'sensitivities' of various receivers as they pass through the shop here. I don't pretend to be the absolute authority on absolute sensitivities of the receivers I test, but I do claim to be reasonably consistent in my testing. For results, see: <http://www.hypertools.com/receiver.html>

As far as sensitivity goes, the hottest radio I've seen here was also hands down the worst to listen to (Mackay 3010C). The radio with one of the poorest measured sensitivity numbers (Rockwell HF-

8054A) is also my favorite for MF & HF AM SWLing. In my opinion, these differences in listening 'quality' are solely due to differences in IF filters, specifically both the bandpass flatness & the group delay characteristics of the filter. The Mackay uses a garden variety crystal filter, the Rockwell receiver uses a filter intended for use with teletype multiplex sigs in a diversity mode - one with superflat frequency response and very constant group delay.

OK, soapbox mode off now. I'm looking forward to an interesting dissection of this topic...

all the best Dave Ross N7EPI ross@hypertools.com

-----  
Date: Wed, 18 Jul 2001 22:19:39 -0700  
From: "Calvinf15" <calvinf15@earthlink.net>  
Subject: Prem-Rx: The "mystery" of S/N measurements...?

Hi Folks,

A bit green on the posts here in the group, but I thought I'd offer up some basic app notes and other goodies that are available on the web. Please goto WJ's web page (<http://www.wj.com/technotes/index.asp>) and see their archive of classic tech notes. Honorable mentions go to the 2-part series on "RX Dynamic Range" with some good info in the "High Dynamic Range Receiver Parameters". Part two of the former describes the Noise Power Ratio Figure of Merit (NPRFOM) that never gained much favor (possibly due to the need for notch filters?). Bob Watson makes a compelling argument for NPRFOM, Noise Figure (NF) and Desensitization Dynamic Range (DDR) as a set of three basic measurements from which most other specs can be derived (SFDR, IP3, MDS, SNR, etc).

Obviously, WJ argues the merits of receivers which can work in relatively dense signal environments. Some of us might not need this capability (go ahead, build that 30 dB gain, 2 dB NF, -53 dB IP3 wiband preamp!). MANY posts have been applied to the construction of front end preamps for this deaf rig or that, some at the obvious expense of IP3 and most other descriptions of dynamic range. We just need to know the signal environment in which we operate. There have been recent posts regarding the reduction of channel spacing from an (antiquated?) 20 KHz down to 5 KHz for Dynamic Range testing at the ARRL labs, and NPRFOM seems to attack this problem using a white noise approach that extends the basic (and somewhat limited) two-tone IMD methods which are commonly used. Can anybody shed light on why the NPRFOM never caught on? I plan to build a set of notch filters and compare some receivers with this method in the near future. Has anybody out there had experience with this FOM/technique?

I notice that not much discussion has focused on NF. Why exactly is that? NF is a basic, compact, bandwidth independent measurement that explains almost everything about receiver sensitivity (although almost nothing about its dynamic range, apart from the low end noise floor). NF is relatively easy to measure using the Y-factor method, a decent noise source, and a spec-an (see Agilent's app note: <http://cp.literature.agilent.com/litweb/pdf/5952-3706E.pdf>). From NF we can derive MDS (any of its many incarnations), noise floor and sensitivity for a given bandwidth. In general, many HF receivers do not publish NF as a spec, relative to the number of VHF/UHF rigs that do. This might be due to higher man-made noise levels at the lower HF freqs, but this should not invalidate the concept of NF as a fundamental RX spec. Comments?

Phase noise. Yet another demon which limits the ability of our gear to work well in the presence of larger, offending signals. Both the phase noise of the transmitting signal and that generated in the rx under test are important. Besides WJ's "Local Oscillator Phase Noise and its Effect on RX Performance" white paper, Bruce Pontius N0ADL does a good job showing us how to measure this quantity in the May 1998 issue of QEX. This is another spec which I think has received far too little attention in today's world of (oftentimes poorly designed) synthesized LOs.



Lord Kelvin was indeed correct. We need to measure to improve. The human ear is far too subjective. The mention of MDS raises the hair on the back of my neck (discernable? to whom? Are we all talking about 3 dB above the noise?). A set of consistent, repeatable and applicable measurements needs to be defined and applied. That request was the beginning of this thread, I believe. The NPRFOM is something that I plan to spend some time with. Together with NF and perhaps DDR I think the community would have a solid set of tools for comparing these fine machines. Food for thought.

Great thread!

Adam MacDonald N1GX Edwards, CA

-----  
Date: Wed, 18 Jul 2001 23:54:35 -0700  
From: Charles Hutton <chutton1@qwest.net>  
Subject: Re: Prem-Rx: Intelligibility testing

And furthermore..... Those that are concerned with audio quality in telecommunications networks (moi, for example) have long ago learned that audio codecs, echo cancellers, signaling detectors, etc. must be tested with standardized audio sources. Otherwise, the results vary too much from tester to tester and become meaningless.

Chuck

David Ross wrote:

> Receiver folks -

> Michael Brown wrote:

> >

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> Amen to that - everyone's ear is different. The only way to come up  
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- > see:
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- > As far as sensitivity goes, the hottest radio I've seen here was also
- > hands down the worst to listen to (Mackay 3010C). The radio with one of
- > the poorest measured sensitivity numbers (Rockwell HF-8054A) is also my
- > favorite for MF & HF AM SWLing.
- > In my opinion, these differences in listening 'quality' are solely due
- > to differences in IF filters, specifically both the bandpass flatness &
- > the group delay characteristics of the filter. The Mackay uses a garden
- > variety crystal filter, the Rockwell receiver uses a filter intended for
- > use with teletype multiplex sigs in a diversity mode - one with
- > superflat frequency response and very constant group delay.
- > OK, soapbox mode off now. I'm looking forward to an interesting
- > dissection of this topic...
- > all the best
- > Dave Ross N7EPI [ross@hypertools.com](mailto:ross@hypertools.com)

-----  
 Date: Thu, 19 Jul 2001 03:14:35 -0400  
 From: Bob Milne <[rmilne@cfl.rr.com](mailto:rmilne@cfl.rr.com)>  
 Subject: Prem-Rx: Intelligibility testing

HI All,

It's great to see the list come alive again with some very thoughtful (yet diverse) opinions offered. I'm not suggesting we throw away NUMBERS. But I am suggesting we not dig ourselves in a hole with them either. What's wrong to opening our minds up to a little structured "subjectivity." I think we are in a similar situation as audiophiles. They publish countless distortion specs, yet those measurements do not tell them how an amplifier will sound. They have to resort to subjective listening tests.

Look at most of the comments made about Prem-Rx's. They are very often subjective in nature. "I like the audio," I don't like the audio, It seems to pick up signals down in the mud clearer." Rob Sherwood said in a recent post, "For weak CW one does really well with an S-Line." Why is this? What numbers does that relate to? How often have we unpacked our new Prem-Rx with superlative specifications, and then be less than enthralled when we fired it up? When we talk about how our receivers are performing when we're using them, we seldom talk in terms of numbers. We talk in terms of real world (subjective?) performance on actual signals.

I would humbly submit that what we're currently measuring doesn't tell the whole story. Although this departs somewhat from the AM sensitivity discussion, is there a test procedure to determine the dynamic response of a receiver's IF/AGC design to rapid changes in signal amplitude? Some receivers produce an abnormal amount of crud. The venerable HQ-180 was outstanding in this respect. I will even go so far as to say that we sometimes attribute this "crud" to selective fading--when that is not the culprit. That point was brought home to me when I was listening to an AM signal with selective fading, and then narrowed the bandwidth to 300 Hz to 2700 Hz with my new Timewave DSP-599zx. Much of

the distortion I was hearing went away. I could hear selective fading distortion on very deep fades, but in general, the signal was much more pleasant to listen to.

Okay. I'll shut up for now and look forward to some more thought-provoking incoming from the list.

Regards.... ....Bob

-----  
Date: Thu, 19 Jul 2001 07:38:32 EDT  
From: Ka9p@aol.com  
Subject: Re: Prem-Rx: Can measuring S/N really be such a mystery???

In a message dated 7/18/01 11:03:04 PM, dentist@nornet.on.ca writes:

<< What indeed makes one premium receiver sound better than another?

>  
Arthur makes a great point in this sentence. When I dragged my 6790 home my son (without prompting) immediately identified it as sounding better than any transciever in the shack. Which as it turns out was because of the combination of the 3.2 khz SSB passband and a cap an earlier owner installed from a test point near the audio amp to ground that substantially rolled off the high frequency response. No hiss, hifi SSB. But it muddles AM intelligibility a bit too much for me. Removing it makes a dramatic difference I thought was great at the time, but my son was right, and its back in now.

I guess the point is that if you're really going to quantitatively compare one to the other, you need to look at the back and front end, and the middle, as wideband audio and IF amplification, and less than excellent AGC, can ruin enjoyment and affect intelligibility of the receiver with the best front end 24/7, not just with respect to weak signal work.

Looking forward to watching the debate continue. Scott

-----  
Date: Thu, 19 Jul 2001 09:31:32 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: Intelligibility testing

Hi,

Seems to me you're headed towards the waterfall in an FFT craft.

73,

Steve Stutman

001.617.901.3490 mobile

On Wed, 18 Jul 2001, Michael Brown wrote:

> Using a program source to test recovered audio is a morass I would not  
> want to wade into. If one person does this test, and selects a radio on this  
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> consuming.....but it might answer some questions....

Date: Thu, 19 Jul 2001 16:00:09 -0400  
From: jeffa@ix.netcom.com  
Subject: Re: Prem-Rx: Intelligibility testing

If a goal is to measure intelligibility, you might want to use the same technique used by the telecom industry, which is Mean Objective Scoring.

This technique has been automated, and at least one company, Malden Electronics (in the UK), makes a box that will generate an "artificial speech" signal for stimulus and will measure the resultant signal (after passing through the comm channel), scoring it for intelligibility & "comfort." If interested, the URL of the box (Digital Speech Level Analyzer) can be found at:  
<http://www.malden.co.uk/products/dsla/dsla.htm>

It's a neat box but it ain't cheap (around 10k bucks - we have one where I work). But if a repeatable measure of speech quality is the goal, this would be a great way to go.

- - Jeff, WA6AHL

-----  
Date: Thu, 19 Jul 2001 21:08:15 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: Receiver measurements

Good evening all (or morning where you are),

Some interesting thoughts are appearing from the group. My first comment is to endorse the value of going to the W-J site and reading the tech notes which Adam McDonald mentioned. He picked up the recommendations for "different" receiver measurements, but my own interest was in the discussion of compromises necessary when designing receivers for good strong signal performance which leads to the use of extremely high local oscillator levels (+ 20dBm or more) into essentially passive mixer devices which have a conversion loss, rather than a conversion gain which we old timers were accustomed to seeing. This leads to a loss of receiver sensitivity which then leads to discussions about "deafness" in receivers like the 6790/GM. Let me tell you that I measured the noise floor in SSB on the 6790/GM at -129dBm, whereas the old Kenwood TS-900, on the same day, on the same test bench turned in -139dBm. That simply means that I can copy signals with the TS-900 which are 10dB below the noise in the 6790!!!! Perhaos we have been chasing strong signal performance too far.

Major point No. 1

I measure m.d.s. (minimum discernible signal) not as a performance check but to establish the actual noise floor of the receiver under test. The theory is simply this: If you measure the no-signal noise from a receiver using a true RMS meter (such as the popular HP-3400), then introduce an unmodulated signal to raise the noise level by 3dB, then the introduced signal will be exactly the same level as the noise. Therefore, the level of the introduced signal will be the effective noise floor of the receiver. It's not intended to be a measure of sensitivity; it's used to establish the level at which an intermodulation product pokes its head above the noise floor, and is simply the reference point for subsequent 2nd and 3rd order intercept point measurements. Let's forget about the 3dB noise floor measurement except as a measure of what level a signal has to be in order to be audible. These measurements are carried out in SSB or CW mode. There is no future in trying to measure the 3dB increase in noise in AM because, as I laid out in a previous posting, the noise in a conventional AM receiver will increase due to its own internal noise, and does not represent a true measure of the noise floor in AM - forget it.

Therefore: major recommendation No.1 is to establish the noise floor of a receiver in SSB or CW mode by recording the input level of an unmodulated signal which raises the audio output from the receiver by 3dB using a true RMS meter. It is, of course, necessary to record the bandwidth of the receiver under test during the measurement.

That's the start. Do we have agreement?? John Wilson

- ----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

Date: Thu, 19 Jul 2001 21:19:03 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: case supplier wanted et al.....

This is a multi-part message in MIME format.

- =====\_NextPart\_000\_0000\_01C11098.6F707940 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: 7bit

Dave,

Since I was the one who manufactured the HF-235 perhaps I can ask a few questions around and see what happened to our original cases. I will be going up to Derbyshire tomorrow to meet with all my old friends, including possibly John Thorpe so will ask for some info. Liked your Racal 6790; it's what I would call a "proper" receiver" in that the tuning knob spins nicely, the tuning rates are ideal, and each press button has a defined function which is obvious to an old pea brain like me. I just tried to find out how to access the memories on my Nokia mobile phone and find that I have to press "up arrow" followed by the number "5" in order to enter memory store and recall. That's just bloody silly to my mind, and how am I supposed to remember that when my car is upside down in a ditch and I need to call the emergency services??? regards John -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Daiungoed@aol.com Sent: 18 July 2001 23:49  
To: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: case supplier wanted et al.....

Hi, This may be slightly off topic, but I am looking for a desktop case to put a LOWE HF-235 into, the set is standard 19 inch rack mount, but only 2U high, as opposed to the normal 3U high. It only needs to be about 12" deep, I have tried Farnell, RS, Maplin, etc, nothing below 3U. Has anyone in UK got any suggestions, even a S/H one I can refurbish would do. I know the receiver does not come under the title of PREMIUM, but I am having more satisfaction playing with it than I have had for a long time. If you do not like the idea of soiling the list with less than premium receivers, pretend it is a WJ 343, or an EDDYSTONE 6200. Only joking about the premium status, we are all here to help if possible, Incidentally, what is it that makes one receiver stand out as the favourite, I have a few premium receivers, but none of them is my favourite choice for anything really, just tuning around, listening to AM or SSB, etc. How about an attempt at definition?? All the best, Dave

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> Since= 20 I was the one who manufactured the HF-235 perhaps I can ask a few = questions= 20  
around and see what happened to our original cases. I will be going up = to= 20 Derbyshire tomorrow  
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supposed to remember that when my car is upside = down in= 20 a ditch and I need to call the  
emergency services???

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> John</SPAN  
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> < FONT = face= 3DTahoma= 20 size= 3D2  
> -----Original Message-----  
> < B  
> From:</B  
> = 20 owner-premium-rx@kahuna.sdsu.edu= 20 [mailto:owner-premium-rx@kahuna.sdsu.edu]< B  
> On Behalf Of= 20 </B  
> Daiungoed@aol.com  
> < B  
> Sent:</B  
> 18 July 2001 23:49  
> < B  
> To:</B  
> =  
premium-rx@kahuna.sdsu.edu  
> < B  
> Subject:</B  
> Prem-Rx: case supplier = wanted et= 20 al.....  
>  
> < FONT face= 3DArial,Helvetica  
> < FONT = size= 3D2  
> Hi,= 20  
> This may be slightly off topic, but I am looking = for a= 20 desktop case to  
> put a LOWE HF-235 into, the set is standard 19 = inch rack= 20 mount, but only 2U  
> high, as opposed to the normal 3U high. It only = needs= 20 to be about 12" deep, I  
> have tried Farnell, RS, Maplin, etc, = nothing below= 20 3U. Has anyone in UK got  
> any suggestions, even a S/H one I can = refurbish= 20 would do. I know the receiver  
> does not come under the title of = PREMIUM,= 20 but I am having more satisfaction  
> playing with it than I have had = for a= 20 long time. If you do not like the idea  
> of soiling the list with = less than= 20 premium receivers, pretend it is a WJ 343,  
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> out as the= 20 favourite, I have a few premium receivers, but none of them is my= 20

> favourite choice for anything really, just tuning around, = listening to AM= 20 or  
> SSB, etc. How about an attempt at definition?? All the = best, = 20 Dave

>  
>  
>

- -----=\_NextPart\_000\_0000\_01C11098.6F707940--

-----  
Date: Thu, 19 Jul 2001 14:31:50 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Re: Prem-Rx: Intelligibility testing

Do they sell these to measure intelligibility of ones wife? I could use one. Communications is often garbled, and the opposite interpretation is made from a fairly obvious statement. Of course there is never any need for such a black box to test a man's statements directed toward his significant other. Hi Hi.

jeffa@ix.netcom.com wrote:

> If a goal is to measure intelligability, you might want to use the same technique used by the telecom industry, which is Mean Objective Scoring.

> This technique has been automated, and at least one company, Malden Electronics (in the UK), makes a box that will generate an "artificial speech" signal for stimulus and will measure the resultant signal (after passing through the comm channel), scoring it for intelligability & "comfort." If interested, the URL of the box (Digital Speech Level Analyzer) can be found at:  
<http://www.malden.co.uk/products/dsla/dsla.htm>

> It's a neat box but it ain't cheap (around 10k bucks - we have one where I work). But if a repeatable measure of speech quality is the goal, this would be a great way to go.

> - Jeff, WA6AHL

-----  
Date: Thu, 19 Jul 2001 16:43:55 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: Intelligibility testing (fwd)

- ----- Forwarded message ----- Date: Thu, 19 Jul 2001 09:31:32 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
To: Michael Brown <piggin@mindspring.com>  
> Cc: premium-rx@kahuna.sdsu.edu  
Subject: Re: Prem-Rx: Intelligibility testing

Hi,

Seems to me you're headed towards the waterfall in an FFT craft.

73,

Steve Stutman

001.617.901.3490 mobile

On Wed, 18 Jul 2001, Michael Brown wrote:

> Using a program source to test recovered audio is a morass I would not

- > want to wade into. If one person does this test, and selects a radio on this
- > criteria, that radio would be great for that one person. Hearing response
- > varies between individuals enough to make this test worthless as any
- > objective measurement. How about this instead..... Use a progression of
- > frequencies starting at 50hz or whatever and increase in 50 or 100hz
- > increments to see if the audio bandpass is flat. I think using SINAD and
- > testing a LOT of discretets would uncover the stellar performers. Time
- > consuming..... but it might answer some questions....

-----  
 premium-rx-digest Saturday, July 21 2001 Volume 01 : Number 144  
 -----

Date: Thu, 19 Jul 2001 13:52:07 -0700  
 From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
 Subject: Prem-Rx: S/N Thread

Gentlemen:

This discussion is first rate. It is reading like a book, even when the Colorado Kid, aka as Rob, throws in the question regarding the adaptability of a "intelligibility" meter for ones wife. (Obviously Rob, you wife doesn't read your mail . . . as I get older, I sometimes wonder if my wife and I are speaking the same language.)

An open forum for exchanging quality information was the goal of the List from day one . . . and it is happening, now.

My hat is off to Adam McDonald and his suggested W-J application notes. Excellent reading, and noteworthy.

FYI- One of our members is taking notes, and will be forwarding to the List a summary of this thread at a later date.

Wilson Proposal: I Quote without permission- \_\_\_\_\_ Major point No. 1

I measure m.d.s. (minimum discernible signal) not as a performance check but to establish the actual noise floor of the receiver under test. The theory is simply this: If you measure the no-signal noise from a receiver using a true RMS meter (such as the popular HP-3400), then introduce an unmodulated signal to raise the noise level by 3dB, then the introduced signal will be exactly the same level as the noise. Therefore, the level of the introduced signal will be the effective noise floor of the receiver. It's not intended to be a measure of sensitivity; it's used to establish the level at which an intermodulation product pokes its head above the noise floor, and is simply the reference point for subsequent 2nd and 3rd order intercept point measurements. Let's forget about the 3dB noise floor measurement except as a measure of what level a signal has to be in order to be audible. These measurements are carried out in SSB or CW mode. There is no future in trying to measure the 3dB increase in noise in AM because, as I laid out in a previous posting, the noise in a conventional AM receiver will increase due to its own internal noise, and does not represent a true measure of the noise floor in AM - forget it.

Therefore: major recommendation No.1 is to establish the noise floor of a receiver in SSB or CW mode by recording the input level of an unmodulated signal which raises the audio output from the receiver by 3dB using a true RMS meter. It is, of course, necessary to record the bandwidth of the receiver under test during the measurement. \_\_\_\_\_

Wilson was silent on the BW of the receiver under test. May I recommend accepting the proposal with the following amendment: the BW of the receiver to be 1 KHz?

Greg K6QPV



-----  
Date: Thu, 19 Jul 2001 17:06:11 -0400  
From: jeffa@ix.netcom.com  
Subject: Re: Prem-Rx: S/N Thread

Greg Bailey <gbailey@mail.sdsu.edu

> wrote:

> Gentlemen: Wilson was silent on the BW of the receiver under test. May I recommend accepting the proposal with the following amendment: the BW of the receiver to be 1 KHz?

Greg K6QPV

One of the problems with defining, a priori, bandwidth, is that a number of receivers may not have that same bandwidth setting. I'd like to recommend that, if a receiver has, say, 3, 4, or 5 filters, for example, that MDS be measured at all of the filter settings. It's certainly a simple measurement and would take only a few additional moments to complete. Given the variability of filter characteristics & rolloff, an actual measurement is surely more informative than trying to extrapolate from one measurement to other bandwidths, anyway. (And I'll admit, I'm much more interested in MDS for SSB bandwidths than for a bandwidth of 1 KHz.)

Best Regards,

- - Jeff, WA6AHL

-----  
Date: Thu, 19 Jul 2001 15:17:13 -0700  
From: John Miles <jmiles@pop.net  
Subject: RE: Prem-Rx: S/N Thread

Hmm. Shouldn't the noise in one filter bandwidth should be related to another by  $\log_{10}(f_1/f_2)$ ? It ought to be possible to normalize all S/N levels to db/1 kHz (or just plain db/Hz for that matter) without requiring the receivers to have any particular common bandwidth in common.

Obviously this neglects post-filter amp and audio noise contributions, but I'm not sure how important those are likely to be in receivers as well-designed as the ones we're talking about.

- - jm

- -----Original Message-----

From: jeffa@ix.netcom.com [SMTP:jeffa@ix.netcom.com] Sent: Thursday, July 19, 2001 2:06 PM  
To: Premium

Subject: Re: Prem-Rx: S/N Thread

Greg Bailey <gbailey@mail.sdsu.edu

> wrote:

> Gentlemen: Wilson was silent on the BW of the receiver under test. May I recommend accepting the proposal with the following amendment: the BW of the receiver to be 1 KHz?

Greg K6QPV

One of the problems with defining, a priori, bandwidth, is that a number of receivers may not have that same bandwidth setting. I'd like to recommend that, if a receiver has, say, 3, 4, or 5 filters, for example, that MDS be measured at all of the filter settings. It's certainly a simple measurement and would take only a few additional moments to complete. Given the variability of filter characteristics & rolloff, an actual measurement is surely more informative than trying to extrapolate from one measurement to other bandwidths, anyway. (And I'll admit, I'm much more interested in MDS for SSB bandwidths than for a bandwidth of 1 KHz.)

Best Regards,

- - Jeff, WA6AHL

-----  
Date: Thu, 19 Jul 2001 15:15:08 -0700  
From: Charles Hutton <chutton1@qwest.net>  
Subject: Re: Prem-Rx: Intelligibility testing

Jeff:

Good thinking. I do have some concerns / comments about PAMS:

- (1) MOS = Mean Opinion Score, although that doesn't change anything except the name.....
- (2) PAMS is not really "automated MOS". It is based on algorithmic estimations of certain degradations and how they are perceived by the human ear. It usually can come close to MOS, but they are not interchangeable at all. (Particularly when dealing with degradations that do not match what the algorithms were designed to detect.)
- (2) The Malden box is based on the PAMS and PESQ routines that were developed in the ITU. See ITU spec P.860 (or is that P.861?) if anyone is interested in the specifications.
- (3) These routines were developed to measure speech quality as determined by "acceptability of the sound quality". In other words, to rate the audio quality as users of the PSTN would rate it. For situations where intelligibility is the only goal, MOS is not used as best I know. Rather, DRT (Diagnostic Rhyme Tests) are used, which is based on the ability of the listener to correctly recognize the words. I do know that for testing of military communications links (where voice quality is often an unneeded luxury), DRT's have been used in the past.
- (4) I have PAMS / PESQ SW and could process audio for anyone that is interested. I don't see that it's the best way to approach this, but just in case others see it differently I thought I'd let you know.
- (5) PAMS / PESQ is not a replacement for MOS. It doesn't have the accuracy. Although MOS testing is expensive, it continues to be the final answer once PAMS / PESQ has told you ballpark answers.

And Jeff: where do you work that you have PAMS? We're users of it here at AT&T Wireless.....

Chuck

jeffa@ix.netcom.com wrote:

> If a goal is to measure intelligability, you might want to use the same technique used by the telecom industry, which is Mean Objective Scoring.

> This technique has been automated, and at least one company, Malden Electronics (in the UK), makes a box that will generate an "artificial speech" signal for stimulus and will measure the resultant signal (after passing through the comm channel), scoring it for intelligability & "comfort." If interested, the URL of the box (Digital Speech Level Analyzer) can be found at:  
<http://www.malden.co.uk/products/dsla/dsla.htm>

> It's a neat box but it ain't cheap (around 10k bucks - we have one where I work). But if a repeatable measure of speech quality is the goal, this would be a great way to go.

> - Jeff, WA6AHL

-----  
Date: Thu, 19 Jul 2001 18:34:24 -0400  
From: jeffa@ix.netcom.com  
Subject: Re: RE: Prem-Rx: S/N Thread

My concern, and admittedly it may make little difference in actuality, is that the shape factor of a filter will influence, to some degree, the actual MDS when compared to a calculation made using an assumption of filter shape. I don't know how much of a difference it would make (depends on how poor a shape factor the filter has, right?), but I'd feel much safer with an actual measurement.

- - Jeff, WA6AHL

"jmiles@pop.net" <jmiles@pop.net

> wrote:

> Hmm. Shouldn't the noise in one filter bandwidth should be related to another by  $\log_{10}(f_1/f_2)$ ? It ought to be possible to normalize all S/N levels to db/1 kHz (or just plain db/Hz for that matter) without requiring the receivers to have any particular common bandwidth in common.

Obviously this neglects post-filter amp and audio noise contributions, but I'm not sure how important those are likely to be in receivers as well-designed as the ones we're talking about.

- - - jm

-----  
Date: Thu, 19 Jul 2001 15:28:10 -0700  
From: "Kurt" <radiouser@uswest.net  
Subject: Prem-Rx: Re: Receiver Measurements

To the Group Here are some sensitivity measurements that were taken from an R-390A that has been on the bench too long. It is an average receiver in that none of the 390 Specialists have gone through it. The only thing that has been done is that the paper caps have been changed out and replaced with Orange Drops and an alignment. All measurements were made using a HP 8920A RF Test Set. It is interesting to note that when making Signal to Noise Ratio measurements that the modulation is turned on and off. The same method that John Wilson spoke of some time back. Two things were measured: Sensitivity using a 1 KC CW tone to yield a 10 db SINAD and sensitivity using a 1 KC tone modulated at 30% to yield a 10 db SNR. The reason for choosing a 10 db SINAD instead of 12 db is that I found that the 8920A 10 db SINAD equals a Helper Instruments SINAD Meter 12 db SINAD.

FREQUENCY SINGLE TONE MODULATED TONE 10 db SINAD 10 db SNR 1.5 MC .52 uv 1.22 uv  
2.5 .17 .50 3.5 .20 .62 4.5 .15 .49 5.5 .15 .48 6.5 .17 .54 7.5 .26 .71 8.5 .17 .57 9.5 .13 .50 10.5 .14  
.51 11.5 .15 .51 12.5 .15 .52 13.5 .14 .49 14.5 .16 .56 15.5 .16 .56 16.5 .15 .50 17.5 .14 .49 18.5  
.18 .59 19.5 .15 .52 20.5 .16 .55 21.5 .16 .54 22.5 .15 .54 23.5 .16 .56 24.5 .20 .63 25.5 .16 .59  
26.5 .16 .59 27.5 .16 .60 28.5 .16 .62 29.5 .18 .68 30.5 .19 .73 31.5 .21 .75 General Notes: Stewart  
Warner R-390A sn 167 1960 contract Manual Gain Control BFO on for single tone test 4 KC filter HP  
8920A -Signal Generator - SINAD Meter - SNR Meter

Admitted this does not answer the many questions of how to make the various measurements but it does show the results of using a piece of test gear that was designed to measure receiver performance using SINAD and SNR. Some of the limitations of the 8920A are that SINAD can only be measured using a 1 KC tone and SNR can only be measured using a modulated tone. More fuel for the fire. Kurt Holbrook

-----  
Date: Thu, 19 Jul 2001 15:56:21 -0700  
From: John Miles <jmiles@pop.net  
Subject: RE: RE: Prem-Rx: S/N Thread

Shouldn't... should/common...common, that'll teach me to type while standing up at my desk trying to get away for lunch! LOL....

If we're concerned about shape factor as well as bandwidth, that complicates matters greatly. Brand X's 1-kHz filter will no longer be comparable to brand Y's 1-kHz filter.

My guess is that the influence of shape factor on signal-to-noise ratio is not significant enough to worry about. It would be interesting if someone has some numbers that argue otherwise. One crystal filter ought to be about the same as another in terms of how much out-of-bandwidth noise it lets through.

- -- jm

- -----Original Message-----

From: jeffa@ix.netcom.com [SMTP:jeffa@ix.netcom.com] Sent: Thursday, July 19, 2001 3:34 PM  
To: Premium Cc: Premium  
Subject: Re: RE: Prem-Rx: S/N Thread

My concern, and admittedly it may make little difference in actuality, is that the shape factor of a filter will influence, to some degree, the actual MDS when compared to a calculation made using an assumption of filter shape. I don't know how much of a difference it would make (depends on how poor a shape factor the filter has, right?), but I'd feel much safer with an actual measurement.

- - Jeff, WA6AHL

"jmiles@pop.net" <jmiles@pop.net

> wrote:

> Hmm. Shouldn't the noise in one filter bandwidth should be related to another by  $\log_{10}(f_1/f_2)$ ? It ought to be possible to normalize all S/N levels to db/1 kHz (or just plain db/Hz for that matter) without requiring the receivers to have any particular common bandwidth in common.

Obviously this neglects post-filter amp and audio noise contributions, but I'm not sure how important those are likely to be in receivers as well-designed as the ones we're talking about.

- -- jm

-----  
Date: Thu, 19 Jul 2001 18:53:02 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: S/N Thread

John Miles wrote:

> Hmm. Shouldn't the noise in one filter bandwidth should be related to  
> another by  $\log_{10}(f_1/f_2)$ ? It ought to be possible to normalize all S/N  
> levels to db/1 kHz (or just plain db/Hz for that matter) without requiring  
> the receivers to have any particular common bandwidth in common.

> Obviously this neglects post-filter amp and audio noise contributions, but  
> I'm not sure how important those are likely to be in receivers as  
> well-designed as the ones we're talking about.

> -- jm

John, pardon my interruption, but I think you have something here - I like the simplification of terms.

But does there exist such a thing as a generic 1 khz bandpass? What about the variance in shape factor and passband ripple between the product of one manufacturer and another? What about ringing, group delay, out-of-band spurious responses, inadvertent leakage paths reducing ultimate rejection? And finally, how honest is a manufacturer in specifying the tolerance of 1 khz? Is this 1.00khz, +/- 5%, +/-10%, or what?

In short, can you directly compare a component designed for and installed permanently in Radio X, with a similat named & intended component built by Manufacturer Y?

What say?

Arthur Shulman

-----  
Date: Thu, 19 Jul 2001 16:15:17 -0700  
From: John Miles <jmiles@pop.net>  
Subject: RE: Prem-Rx: S/N Thread

<< In short, can you directly compare a component designed for and installed permanently in Radio X, with a similar named & intended component built by Manufacturer Y?

>  
> That's exactly the problem with taking shape factor into account. I don't think we want to go there. :)  
- -- jm

-----  
Date: Thu, 19 Jul 2001 18:42:52 -0700  
From: John Reed <jreed@ponca.net>  
Subject: Re: Prem-Rx: Receiver measurements

John Wilson wrote:

> Good evening all (or morning where you are),

> Some interesting thoughts are appearing from the group. My first comment is  
> to endorse the value of going to the W-J site and reading the tech notes  
> which Adam McDonald mentioned. He picked up the recommendations for  
> "different" receiver measurements, but my own interest was in the discussion  
> of compromises necessary when designing receivers for good strong signal  
> performance which leads to the use of extremely high local oscillator levels  
> (+ 20dBm or more) into essentially passive mixer devices which have a  
> conversion loss, rather than a conversion gain which we old timers were  
> accustomed to seeing. This leads to a loss of receiver sensitivity which  
> then leads to discussions about "deafness" in receivers like the 6790/GM.  
> Let me tell you that I measured the noise floor in SSB on the 6790/GM  
> at -129dBm, whereas the old Kenwood TS-900, on the same day, on the same  
> test bench turned in -139dBm. That simply means that I can copy signals with  
> the TS-900 which are 10dB below the noise in the 6790!!!! Perhaps we have  
> been chasing strong signal performance too far.

Several comments here: When these measurements are converted to noise figure the Racal gives a noise figure of 10 dB (assuming the 3200 Hz SSB filter was used). That's not what I would call "deaf" by any stretch. The RA6793A is speced at a noise figure of 15 dB, and I measure mine at 14 dB. I was able to hear a 1.5 milliwatt beacon broadcasting from Minnesota here in Oklahoma on 13 MHz with it that I couldn't hear on several other receivers that were speced more sensitive. Now, when I convert the above Kenwood sensitivity to noise figure it comes out to be 0 dB (assuming the same filter was used). I don't think that that's a fair comparison since obviously the same filter bandwidth was not being used. If these measurements were converted to noise figures it would take questions about the filter bandwidth out of comparisons.

These discussions about sensitivity seem to assume that receiver noise is stronger than the prevailing atmospheric noise. I don't think that excessive sensitivity of the receiver needs to be that strong a consideration. For example see "Tech-Talk by Ten-Tek" in the Ten-Tek ad in July 2001 QST. The point is made that atmospheric noise below 10 MHz runs at about an equivalent of a 40 dB noise figure, and more sensitivity is wasted. At higher frequencies, the bands get quieter, but nowhere near 10 dB. The old saying about hearing the noise increase when the antenna is connected makes sense. If you hear

the noise increase when you hook up the antenna, your receiver is sensitive enough. I don't have any receivers that don't show this increase. Does anybody?

> Major point No. 1

> I measure m.d.s. (minimum discernible signal) not as a performance check but  
> to establish the actual noise floor of the receiver under test. The theory  
> is simply this: If you measure the no-signal noise from a receiver using a  
> true RMS meter (such as the popular HP-3400), then introduce an unmodulated  
> signal to raise the noise level by 3dB, then the introduced signal will be  
> exactly the same level as the noise. Therefore, the level of the introduced  
> signal will be the effective noise floor of the receiver. It's not intended  
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> previous posting, the noise in a conventional AM receiver will increase due  
> to its own internal noise, and does not represent a true measure of the  
> noise floor in AM - forget it.

> Therefore: major recommendation No.1 is to establish the noise floor of a  
> receiver in SSB or CW mode by recording the input level of an unmodulated  
> signal which raises the audio output from the receiver by 3dB using a true  
> RMS meter. It is, of course, necessary to record the bandwidth of the  
> receiver under test during the measurement.

> That's the start. Do we have agreement??  
Convert MDS to noise figure.

73, John

-----  
Date: Thu, 19 Jul 2001 19:49:15 -0700  
From: Craig McCartney <craigmc@pacbell.net>  
Subject: RE: RE: Prem-Rx: S/N Thread

While I may not be technically qualified enough to be in the middle of this very interesting discussion I do have one observation.

Measuring receiver characteristics using several (or all?) available IF bandwidths has some merit, at least in special cases. For instance, the four mechanical filters in the R-390A receivers have losses that are different enough to possibly affect these measurement, even if converted to dB/Hz, and certainly the performance. I think it is due to aging, but I have yet to see an example of this fine receiver that has 'matching' filters. I have seen as much as 10 dB (on the CARRIER meter) difference when switching between filters. I have also seen the same effect with the crystal filters used in the Drake R7/TR7/R4245 series, although not to the same extent.

Craig

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of John Miles Sent: Thursday, July 19, 2001 3:56 PM Cc: Premium  
Subject: RE: RE: Prem-Rx: S/N Thread

Shouldn't... should/common...common, that'll teach me to type while standing up at my desk trying to get away for lunch! LOL....

If we're concerned about shape factor as well as bandwidth, that complicates matters greatly. Brand X's 1-kHz filter will no longer be comparable to brand Y's 1-kHz filter.

My guess is that the influence of shape factor on signal-to-noise ratio is not significant enough to worry about. It would be interesting if someone has some numbers that argue otherwise. One crystal filter ought to be about the same as another in terms of how much out-of-bandwidth noise it lets through.

- -- jm

- -----Original Message-----

From: jeffa@ix.netcom.com [SMTP:jeffa@ix.netcom.com] Sent: Thursday, July 19, 2001 3:34 PM

To: Premium Cc: Premium

Subject: Re: RE: Prem-Rx: S/N Thread

My concern, and admittedly it may make little difference in actuality, is that the shape factor of a filter will influence, to some degree, the actual MDS when compared to a calculation made using an assumption of filter shape. I don't know how much of a difference it would make (depends on how poor a shape factor the filter has, right?), but I'd feel much safer with an actual measurement.

- - Jeff, WA6AHL

"jmiles@pop.net" <jmiles@pop.net

> wrote:

> Hmm. Shouldn't the noise in one filter bandwidth should be related to another by  $\log_{10}(f_1/f_2)$ ? It ought to be possible to normalize all S/N levels to db/1 kHz (or just plain db/Hz for that matter) without requiring the receivers to have any particular common bandwidth in common.

Obviously this neglects post-filter amp and audio noise contributions, but I'm not sure how important those are likely to be in receivers as well-designed as the ones we're talking about.

- -- jm

-----  
Date: Thu, 19 Jul 2001 22:16:00 -0700

From: "Calvinf15" <calvinf15@earthlink.net

Subject: RE: Prem-Rx: S/N Thread

Folks,

I think Jeff has a good point. Not only are the bandwidths on our rigs different, but even if marked correctly and listed as the same BW (say 3.2 KHz), one would have to integrate the area under the response curve to establish a true "equivalent" bandwidth. Of course, this has and can be done, but only with a good amount of care and data collection. Comparisons between \*similar\* radios is easily done with BW dependant measurements such as MDS.

My point is this: Noise Figure (NF) can be easily measured with or without a spec-an. An HP 3400 RMS or other accurate power meter will do just fine, as long as the bandwidth is limited to less than that of the IF chain. The only piece of equipment beyond this is a calibrated noise source which can be expensive (HP346B) or very inexpensive (NoiseCom NCXXX series noise diodes, www.noisecom.com). Noise Figure (and even more so, Noise Temperature) is completely independant of receiver bandwidth! Better still, the sensitivity can be directly calculated for any desired BW/SNR combination from the NF by:  $S = -174 \text{ dBm} + \text{NF} + 10 \log \text{BW} + K_{sn} + K_m$  where  $K_{sn}$  is the desired SNR (S+N)/N, usually chosen as 10 dB, and  $K_m$  is the Modulation characteristic (eg 6 dB for 50% AM, postdetected). I have found my sensitivity measurements are within 5 to 10% of this calculation after measurement of the NF, and I attribute the error mainly to my lack of knowlege of the

true BW. The above math is better illustrated with examples in the WJ tech note at:  
<http://www.wj.com/technotes/HighDynRangeRec.pdf>.

John Reed does some quick calculations in his post which do a good job illustrating the confusion one can encounter when trying to compare receivers with different (possibly unknown) bandwidths. He suggests to convert MDS measurements to NF, but I go one step further, and say that we should make the more fundamental measurement of NF in the first place.

John Wilson's technique of determining a 3dB MDS is absolutely valid, and he points out that he uses the measurement solely as a basis for further dynamic range measurements: "I measure m.d.s. (minimum discernible signal) not as a performance check but to establish the actual noise floor of the receiver under test." We must however, in the same breath, say that the measurement is made at a particular (sometimes radio unique) bandwidth.

Noise Figure at a given frequency is a single bandwidth independent number (expressed in the ubiquitous dB) that describes the basic sensitivity of a receiver. I love to read the specs from some less than scrupulous receiver manufacturers who claim to have .15 uV SSB (10 dB SNR) sensitivity while indicating in the fine print that it is measured with the optional 500 Hz filter. Nowhere in these specs will I typically find a plot of NF vs Freq, however. When I do measure the NF on the bench, you can bet that it isn't any 8-10 dB.

John Miles wrote:

- > Hmm. Shouldn't the noise in one filter bandwidth should be related to
- > another by  $\log_{10}(f_1/f_2)$ ? It ought to be possible to normalize all S/N
- > levels to db/1 kHz (or just plain db/Hz for that matter) without requiring
- > the receivers to have any particular common bandwidth in common.

John is definitely barking up the same tree as I. The concept of NF does this for us without requiring any further normalization and relation of  $f_1$  to  $f_2$ . It is universally applicable.

The Y-factor method of measuring NF is really quite simple (and well described in Agilent App Note 57-1, <http://www.tm.agilent.com>). A calibrated noise source is easy to build upto modest frequencies of about 1 GHz or so (even easier at HF). A good reference is the article by Paul Wade, N1BWT QEX Nov 96 regarding the construction of a calibrated noise source using an inexpensive noise diode (NC302L). If anyone wants to build one of these little devices, I volunteer to calibrate it using an HP8970A system. Email me if you need particulars from the article. Warm up those soldering irons...

I know none of this even touches the deeper discussion of receiver dynamic range, but measuring sensitivity is a start.

Comments?

Adam, N1GX

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of jeffa@ix.netcom.com Sent: Thursday, July 19, 2001 2:06 PM

To: Premium

Subject: Re: Prem-Rx: S/N Thread

Greg Bailey <gbailey@mail.sdsu.edu

> wrote:

> Gentlemen: Wilson was silent on the BW of the receiver under test. May I recommend accepting the proposal with the following amendment: the BW of the receiver to be 1 KHz?

Greg K6QPV

One of the problems with defining, a priori, bandwidth, is that a number of receivers may not have that same bandwidth setting. I'd like to recommend that, if a receiver has, say, 3, 4, or 5 filters, for example, that MDS be measured at all of the filter settings. It's certainly a simple measurement and



would take only a few additional moments to complete. Given the variability of filter characteristics & rolloff, an actual measurement is surely more informative than trying to extrapolate from one measurement to other bandwidths, anyway. (And I'll admit, I'm much more interested in MDS for SSB bandwidths than for a bandwidth of 1 KHz.)

Best Regards,

- - Jeff, WA6AHL

-----  
Date: Fri, 20 Jul 2001 08:04:23 -0700  
From: "Paul" <radioboy@telus.net>  
Subject: Prem-Rx: FS Racal - Collins

Hi Group,

I'm reducing my collection for a while and have decided to sell a few receivers.

3 - Racal RA6790GM 1 - Collins HF-2050 1 - Collins R-390

Please email me for details and prices.

Thanks all.

Paul VE7KHZ

-----  
Date: Fri, 20 Jul 2001 15:48:06 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: S/N Thread

Calvinf15 wrote:

> Folks,

> My point is this: Noise Figure (NF) can be easily measured with or without  
> a spec-an. An HP 3400 RMS or other accurate power meter will do just fine,  
> as long as the bandwidth is limited to less than that of the IF chain. The  
> only piece of equipment beyond this is a calibrated noise source which can  
> be expensive (HP346B) or very inexpensive (NoiseCom NCXXX series noise  
> diodes, www.noisecom.com). Noise Figure (and even more so, Noise  
> Temperature) is completely independant of receiver bandwidth! Better still,  
> the sensitivity can be directly calculated for any desired BW/SNR  
> combination from the NF by:  $S = -174 \text{ dBm} + \text{NF} + 10 \log \text{BW} + K_{sn} + K_m$  where  
>  $K_{sn}$  is the desired SNR  $(S+N)/N$ , usually chosen as 10 dB, and  $K_m$  is the  
> Modulation characteristic (eg 6 dB for 50% AM, postdetected). I have found  
> my sensitivity measurements are within 5 to 10% of this calculation after  
> measurement of the NF, and I attribute the error mainly to my lack of  
> knowlege of the true BW. The above math is better illustrated with examples  
> in the WJ tech note at: <http://www.wj.com/technotes/HighDynRangeRec.pdf>.

> John Reed does some quick calculations in his post which do a good job  
> illustrating the confusion one can encounter when trying to compare  
> receivers with different (possibly unknown) bandwidths. He suggests to

> John Wilson's technique of determining a 3dB MDS is absolutely valid, and he  
> points out that he uses the measurement solely as a basis for further  
> dynamic range measurements: "I measure m.d.s. (minimum discernible signal)

> The Y-factor method of measuring NF is really quite simple (and well  
> described in Agilent App Note 57-1, <http://www.tm.agilent.com>). A  
> calibrated noise source is easy to build upto modest frequencies of about 1  
> GHz or so (even easier at HF). A good reference is the article by Paul  
> Wade, N1BWT QEX Nov 96 regarding the construction of a calibrated noise  
> source using an inexpensive noise diode (NC302L). If anyone wants to build  
> one of these little devices, I volunteer to calibrate it using an HP8970A  
> system. Email me if you need particulars from the article. Warm up those  
> soldering irons...

> Adam, N1GX

Is there a consensus on what we have so far? I would like to see the QEX article, if possible.

I have a few, (maybe more than a few) questions, but lets hear more. My soldering iron is at hand.

Arthur Shulman

-----  
Date: Fri, 20 Jul 2001 16:09:36 -0400  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>  
Subject: RE: Prem-Rx: S/N Thread  
> Calvinf15 wrote:

> > A good reference is the article by Paul  
> > Wade, N1BWT QEX Nov 96 regarding the construction of a  
> > calibrated noise source using an inexpensive noise  
> > diode (NC302L). If anyone wants to build one of these  
> > little devices, I volunteer to calibrate it using an  
> > HP8970A system. ...

Arthur Shulman wrote:

> Is there a consensus on what we have so far? I would like to  
> see the QEX article, if possible.

Arthur, I will be emailing you a PDF of this article. If anyone else would like a copy, please let me know (its 1.1MB).

73, Michael Tracy, KC1SX

-----  
Date: Fri, 20 Jul 2001 14:51:36 -0700  
From: Kerry Banke <kbanke@qualcomm.com>  
Subject: RE: Prem-Rx: S/N Thread

I also have posted an article on building an inexpensive noise source. It's on the web at:<http://www.ham-radio.com/sbms/sd/nfsource.htm> I optimized it for VHF through Microwave but I can easily see what it takes to optimize it for HF work. The design as is has about 15 dB excess noise out of the diode at 10 MHz which leaves no room for attenuation. I think the main modification would be to reduce the diode current to maximize the output at the lower end of the HF band. It sounds like at least 15 dB excess noise is required for the straight mixer type receivers . I'll gladly mail off a diode and board (as indicated on the web article) to anyone on this list that is serious about building a noise source. - Kerry N6IZW -

At 04:09 PM 7/20/01 -0400, Tracy, Michael, KC1SX wrote:

> Calvinf15 wrote:

- >
- > > A good reference is the article by Paul
- > > Wade, N1BWT QEX Nov 96 regarding the construction of a
- > > calibrated noise source using an inexpensive noise
- > > diode (NC302L). If anyone wants to build one of these
- > > little devices, I volunteer to calibrate it using an
- > > HP8970A system.
- > ...
- > Arthur Shulman wrote:
- >
- > Is there a consensus on what we have so far? I would like to
- > see the QEX article, if possible.
- > Arthur,
- > I will be emailing you a PDF of this article. If anyone else would
- > like a copy, please let me know (its 1.1MB).
- > 73, Michael Tracy, KC1SX

-----  
 Date: Fri, 20 Jul 2001 21:27:58 -0400  
 From: A D Shulman DDS <dentist@nornet.on.ca>  
 Subject: Re: Prem-Rx: S/N Thread

Kerry Banke wrote:

- > I also have posted an article on building an inexpensive noise source.
- > It's on the web at:<http://www.ham-radio.com/sbms/sd/nfsource.htm>
- > I optimized it for VHF through Microwave but I can easily see what it takes
- > to optimize it for HF work. The design as is has about 15 dB excess noise
- > out of the diode at 10 MHz which leaves no room for attenuation. I think
- > the main modification would be to reduce the diode current to maximize the
- > output at the lower end of the HF band. It sounds like at least 15 dB
- > excess noise is required for the straight mixer type receivers . I'll
- > gladly mail off a diode and board (as indicated on the web article) to
- > anyone on this list that is serious about building a noise source.
- > - Kerry N6IZW -

Kerry, Thank you. I am quite serious about building & using this device. I have read your quoted article and have the following questions:

1) I am presently not overstocked with test equipment here. Particularly I have no true RMS voltmeter or Noise Meter. What do you suggest as an output device to read the NF of the DUT? Is this a function I can obtain with an add-on or modification of an existing device? Should I go shopping at a surplus dealer? Pse advise.

2) My interests include HF thru VHF/UHF & low microwave. Can a single generator cover this range conveniently or should the modified device you contemplate be reserved for HF measurements?

Thank you.

Arthur Shulman

-----  
Date: Sat, 21 Jul 2001 07:35:54 -0700  
From: John Reed <jreed@ponca.net>  
Subject: Re: Prem-Rx: S/N Thread

A D Shulman DDS wrote:

> Kerry Banke wrote:

> > I also have posted an article on building an inexpensive noise source.  
> > It's on the web at:<http://www.ham-radio.com/sbms/sd/nfsource.htm>  
> > I optimized it for VHF through Microwave but I can easily see what it takes  
> > to optimize it for HF work. The design as is has about 15 dB excess noise  
> > out of the diode at 10 MHz which leaves no room for attenuation. I think  
> > the main modification would be to reduce the diode current to maximize the  
> > output at the lower end of the HF band. It sounds like at least 15 dB  
> > excess noise is required for the straight mixer type receivers . I'll  
> > gladly mail off a diode and board (as indicated on the web article) to  
> > anyone on this list that is serious about building a noise source.  
> > - Kerry N6IZW -

> Kerry,  
> Thank you. I am quite serious about building & using this device. I have read  
> your quoted article and have the following questions:

> 1) I am presently not overstocked with test equipment here. Particularly I  
> have no true RMS voltmeter or Noise Meter. What do you suggest as an output  
> device to read the NF of the DUT? Is this a function I can obtain with an  
> add-on or modification of an existing device? Should I go shopping at a surplus  
> dealer? Pse advise.

Same here. I already have a noise source suitable for the lower part of HF, a GR 1390-B random noise generator. All I would need to do is calibrate it. I'm interested in finding how much error in noise figure is involved in making the quick and dirty calculation using the MDS and bandwidth. I have a spectrum analyzer but no noise meters.

73, John

-----  
Date: Sat, 21 Jul 2001 21:38:06 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: S/N Thread

Hi folks, Someone picked up on my deliberate mistake (actually I wasn't specific enough). The TS-900 sensitivity figure I quoted was indeed in a different bandwidth - to wit - a 500Hz filter. On other topics, whilst it is theoretically true that one can compare S/N in one bandwidth with that in a different bandwidth by taking the log ratio of the two bandwidths, it doesn't work in this instance because you have to assume that all the noise you measure is that coming through the filter, and takes no account of post-filter noise in the receiver. Witness the excessive post filter noise in the Cubic 3030 which would

prevent extrapolation of one filter bandwidth to another. I note the suggestion of a standardised 1kHz bandwidth for all our measurements but I actually haven't found many of the stock "premium" receivers with a 1kHz filter, whilst most receivers do have an SSB filter ranging from 2.4kHz to 3.2kHz which would serve admirably.

Noise figure. I have found in my working life with HF equipment that noise figure measurement is not as simple as it sounds, and is most certainly difficult to get repeatable measurements. The concept is delightfully simple; so simple that it seems strange that in all my time with Marconi I never used a noise figure measurement, nor have I encountered it in general use with other manufacturers. What are the experiences of other list contributors? I have of course used the "noise slot" type of measurement in wide band communications systems, and Marconi Instruments provided us with the necessary and very effective test gear in the 1960s, but no-one ever used the technique on HF communications equipment to my knowledge. (but I could be wrong)

Perhaps it's time to be a moderator and slide the graphite rods into the reactor to cool down the activity. What we have to remember is that most owners and users of these receivers have a massive amount of practical "hands-on" experience and knowledge, often without realising it. When we sit down and use a receiver we are probably employing a huge amount of analytical thought in deciding whether or not the unit is any good, and we do this without going near a signal generator or true RMS meter. In asking for a simple series of standard tests to tell us the "goodness" or "badness" of a receiver, it is rather akin to asking for five simple tests to turn us all into experienced brain surgeons. There's more to it than measurement alone, but it's still a stimulating discussion if we stay within the bounds of common sense. We don't want to end up with the "Angels dancing on a pin" arguments.  
Regards John

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of jeffa@ix.netcom.com Sent: 19 July 2001 23:06  
To: Premium

Subject: Re: Prem-Rx: S/N Thread

Greg Bailey <gbailey@mail.sdsu.edu

> wrote:

> Gentlemen: Wilson was silent on the BW of the receiver under test. May I recommend accepting the proposal with the following amendment: the BW of the receiver to be 1 KHz?

Greg K6QPV

One of the problems with defining, a priori, bandwidth, is that a number of receivers may not have that same bandwidth setting. I'd like to recommend that, if a receiver has, say, 3, 4, or 5 filters, for example, that MDS be measured at all of the filter settings. It's certainly a simple measurement and would take only a few additional moments to complete. Given the variability of filter characteristics & rolloff, an actual measurement is surely more informative than trying to extrapolate from one measurement to other bandwidths, anyway. (And I'll admit, I'm much more interested in MDS for SSB bandwidths than for a bandwidth of 1 KHz.)

Best Regards,

- - Jeff, WA6AHL

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premium-rx-digest Wednesday, July 25 2001 Volume 01 : Number 145  
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Date: Sun, 22 Jul 2001 00:04:50 -0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Prem-Rx: Premium Antennas

Anyone out there with lots and lots (or possibly even more ) of space ??? Looking for a premium antenna to go with your premium RX ???

Check out this page on rhombic antennas and some history of WWII-Chopmist Hill listening station and more at: <http://users.neca.com/cummings/rhombic.html>

Now, where do I find a suitable patch of land ??? Hmmm.....

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 <http://www.qsl.net/dl4obn>

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Date: Sat, 21 Jul 2001 21:59:49 +0200  
From: "John Wilson" <[johnwilson@freezone.co.uk](mailto:johnwilson@freezone.co.uk)>  
Subject: FW: Prem-Rx: S/N Thread

- -----Original Message-----

From: John Wilson [mailto:[johnwilson@freezone.co.uk](mailto:johnwilson@freezone.co.uk)] Sent: 21 July 2001 21:38  
To: [jeffa@ix.netcom.com](mailto:jeffa@ix.netcom.com) Cc: premium  
Subject: RE: Prem-Rx: S/N Thread

Hi folks, Someone picked up on my deliberate mistake (actually I wasn't specific enough). The TS-900 sensitivity figure I quoted was indeed in a different bandwidth - to wit - a 500Hz filter. On other topics, whilst it is theoretically true that one can compare S/N in one bandwidth with that in a different bandwidth by taking the log ratio of the two bandwidths, it doesn't work in this instance because you have to assume that all the noise you measure is that coming through the filter, and takes no account of post-filter noise in the receiver. Witness the excessive post filter noise in the Cubic 3030 which would prevent extrapolation of one filter bandwidth to another. I note the suggestion of a standardised 1kHz bandwidth for all our measurements but I actually haven't found many of the stock "premium" receivers with a 1kHz filter, whilst most receivers do have an SSB filter ranging from 2.4kHz to 3.2kHz which would serve admirably.

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Regards John

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:[owner-premium-rx@kahuna.sdsu.edu](mailto:owner-premium-rx@kahuna.sdsu.edu)] On Behalf Of [jeffa@ix.netcom.com](mailto:jeffa@ix.netcom.com) Sent: 19 July 2001 23:06  
To: Premium

Subject: Re: Prem-Rx: S/N Thread

Greg Bailey <gbailey@mail.sdsu.edu

> wrote:

> Gentlemen: Wilson was silent on the BW of the receiver under test. May I recommend accepting the proposal with the following amendment: the BW of the receiver to be 1 KHz?

Greg K6QPV

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Best Regards,

- - Jeff, WA6AHL

-----  
Date: Sat, 21 Jul 2001 21:36:54 -0700  
From: "Paul" <radioboy@telus.net  
Subject: Prem-Rx: FS ITT MacKay 3021A

Hi Group,

Selling my ITT MacKay 3021A receiver in great condition with spare boards, parts, meters, manual and lot's more. \$450USD plus shipping for everything. 73 Paul VE7KHZ

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Date: Sun, 22 Jul 2001 20:49:22 -0200  
From: Thomas Roth <th.roth@knuut.de  
Subject: Prem-Rx: CAI CR-70

--Boundary--\_XrJmOWFrxsjyBldbEFSArCBynEcd Content-Type: text/plain Content-Transfer-Encoding: quoted-printable

Hi all,

looks like I need some help here. I have the opportunity to buy a CAI CR-70 RX. The owner meant to sell it via eBay Germany but got no bids, probably because no one knows it. I also know absolutely nothing about the radio. In Ostermann's B4s book (2nd ed.) it appears on page 341 under "Briefly Mentioned". The manufacturer is "Communications Associates, Inc." and the thing was made in the U.S. from round about 1970-1971. Under comments it just says: "A commercial receiver, Scarce". Does anyone know anything about this ??? It may not fall in the premium category but looks interesting nonetheless. And the price is very reasonable...

Have a look at the picture. Maybe that triggers some memories. = 20

Any off-list replies would be very much appreciated !!!

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 <http://www.qsl.net/dl4obn>

-----  
Date: Mon, 23 Jul 2001 12:37:55 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com  
Subject: Prem-Rx:

Hi All, Anyone have a manual for a WJ 8718A, please contact Mark. He can get a 8718 no A. fc

-----  
Date: Mon, 23 Jul 2001 22:57:47 -0400  
From: "W. Charles Alexander" <charlie@swl-ute.com>  
Subject: Prem-Rx: Ten Tec RX-340 EPROM update

Hello Gentlemen:

I received my EPROM update on the RX-340 today, and posted a few comments on my web pages for the RX-340 at [http://www.swl-ute.com/eprom\\_update.htm](http://www.swl-ute.com/eprom_update.htm) . (Just fyi my "Main" RX-340 page is <http://www.swl-ute.com/rx-340.htm> ).

If anyone has more information on the updates please e-mail me at the address below, and I will be glad to post them on my site.

I will be adding more information tomorrow after I talk to Ten Tec, and I will try to add a few photo's tomorrow night, of the installation. I did not receive any information about what was updated or how to use what they did update. Some like extended Notch is a no brainer and the NB has been in the manual, but did not work so it should be OK also, but what about the maybe added feature autonotch?

Charlie

=====  
===== 73 de charlie W. Charles Alexander  
KC8IKG E-Mail mail To:charlie@swl-ute.com Web Site <http://www.swl-ute.com/shortwave> Monitoring  
the World from Columbus, Ohio USA 39.951 N 83.124 W HF Ten Tec RX-340, AOR AR3030,  
Drake/Grundig Sat. 800 VHF/UHF Alinco DJ-X10, BearCat BC 895 XLT  
=====  
=====

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Date: Mon, 23 Jul 2001 23:04:38 -0400  
From: "W. Charles Alexander" <chalexand@columbus.rr.com>  
Subject: Prem-Rx: Ten Tec RX-340 EPROM Update re post

Hello Gentlemen: Sorry if this ends up a double post, I sent it out from my new e-mail address and realized I have not updated it with the List Admin yet, so I figure the first will bounce.

I received my EPROM update on the RX-340 today, and posted a few comments on my web pages for the RX-340 at [http://www.swl-ute.com/eprom\\_update.htm](http://www.swl-ute.com/eprom_update.htm) . (Just fyi my "Main" RX-340 page is <http://www.swl-ute.com/rx-340.htm> ).

If anyone has more information on the updates please e-mail me at the address below, and I will be glad to post them on my site.

I will be adding more information tomorrow after I talk to Ten Tec, and I will try to add a few photo's tomorrow night, of the installation. I did not receive any information about what was updated or how to use what they did update. Some like extended Notch are the normal method and the NB has been in the manual but did not work so it should be OK also, but what about the maybe added feature autonotch?

Charlie

=====  
===== 73 de charlie W. Charles Alexander  
KC8IKG E-Mail mail To:charlie@swl-ute.com Web Site <http://www.swl-ute.com/shortwave> Monitoring  
the World from Columbus, Ohio USA 39.951 N 83.124 W HF Ten Tec RX-340, AOR AR3030,  
Drake/Grundig Sat. 800 VHF/UHF Alinco DJ-X10, BearCat BC 895 XLT



=====  
=====  
-----  
Date: Tue, 24 Jul 2001 08:43:51 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx:

Hi All, Greg, please update Mark's email address change so he can get mail. Today's point is: IF filter ultimate rejection must be greater than dynamic range or that will be the limiting factor in the receiver performance. Years ago when I only operated CW I took my Heath SB303 and added three filters in the IF strip. Two at the input and one at the output. The mixers were changed to diode ring and the first IF was tuned with a ten turn pot geared off the main tuning. I tuned the first IF with varactor diodes. I ended up with a dynamic range of 85 dB but the rejection was much better. The lack of shielding in the chassis and not up conversion moved me to build my own. I don't know of any receivers out there that come close to this level of filtering. Even DSP radios use wide band filters in the IF strip. I'm looking at some units with large open spaces like the RA6790 and RA1792 and wondering what if. The RA6830 has a spare slot between the IF and demodulator. Maybe it is time to build a filter board to take advantage of the great mixer design. We seem to concentrate on noise figure and dynamic range but we need to look at the whole picture for real performance. Then there is the synthesizer we all love..... fc

-----  
Date: Tue, 24 Jul 2001 08:30:15 -0700  
From: John Reed <jreed@ponca.net>  
Subject: Prem-Rx: Post IF filtering

Carcia, Frank A. HS wrote:

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> will be the limiting factor in the receiver performance. Years ago  
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I just got through building a filter board with five switched filters to go behind the IF strip on my RA6793A. It's switched with the same voltage that switches the pre-IF filters. I put it in the line that

goes to the demodulator chip and mounted the board on spacers above the IF board. This is a big improvement in narrowband reception.

Also in response to the thread on sensitivity, I am able to measure noise figure using a random noise generator, calibrated with a spectrum analyzer. It's interesting to measure noise figure on a receiver's different bandwidths and see them all remain the same. Here are the results so far:

Racal RA6793A NF = 12-13 dB except for one filter that must be faulty at 21. Harris RF-590 NF = 10-11 dB Sylvania R1414 NF = 6 dB BR comm. RCS-5A Chirpsounder 13 dB.

There are a couple more receivers I need to test.

As a comparison, the noise figures on the Racal using the "quick and dirty" method of converting MDS are running from 15 to 18 dB. Measuring with a random noise generator is actually easier after calibration of the source.

73, John

-----  
Date: Tue, 24 Jul 2001 10:59:09 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Post I F filtering

Hi John, I wonder what you used for the switch, relay or pin diodes. The full rack radios have the advantage of space to grow. I found the Racal filters have about 80 dB of rejection in a fixture but less in the circuit with the resistive power splitter on the inputs. I'm looking at pin diodes on each input to short the input to ground when not in use. I simulated this with caps tacked in and there is big change in rejection. This with an extra batch of filters will do the trick in the rejection department. fc

> -----Original Message-----

> From: John Reed [SMTP:jreed@ponca.net]

> Sent: Tuesday, July 24, 2001 11:30 AM

> To: 'Premium-RX@kahuna.sdsu.edu'

> Subject: Prem-Rx: Post I F filtering

> Carcia, Frank A. HS wrote:

> >

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> As a comparison, the noise figures on the Racal using the "quick and  
> dirty" method of converting MDS are running from 15 to 18 dB. Measuring  
> with a random noise generator is actually easier after calibration of  
> the source.

> 73, John

-----  
Date: Tue, 24 Jul 2001 16:20:49 -0700  
From: Charles Hutton <chutton1@qwest.net>  
Subject: Prem-Rx: (no subject)

Hi all -

Can anyone tell me how many bits are used in the ADC's of the NRD-545 and any other current DSP based radios?

I'm close to buying a development board for either the 32 bit TI or AD DSP's and need to get an adequate A to D front end. My goal is either to do filtering and demod of a 455 KHz IF or a direct conversion radio for MW and up to maybe 5 MHz. In either case, I'm going for top of the line selectivity and dynamic range. I'll have the MIPS to have taps galore, but I am not yet sure whether for example there will be any real difference between the easier to find 14 bit ADC's and the rarer 16 bit ADC's as the front end.

Any education / advice will be appreciated.

Chuck

-----  
Date: Wed, 25 Jul 2001 08:11:21 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: (no subject)

Hi, Check with Pete WA1SOV who has a web site some where. He has playing with this stuff for a while now. fc

> -----Original Message-----

> From: Charles Hutton [SMTP:chutton1@qwest.net]

> Sent: Tuesday, July 24, 2001 7:21 PM

> To: Premium

> Subject: Prem-Rx: (no subject)

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> Any education / advice will be appreciated.

>  
> Chuck

-----  
Date: Wed, 25 Jul 2001 09:23:47 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: (no subject)

Hi,

There are a number of good sites and articles out there. Two useful ones are:

[http://www.wvc.edu/~frohro/R2\\_DSP/Motorola\\_DSP\\_Receiver.html](http://www.wvc.edu/~frohro/R2_DSP/Motorola_DSP_Receiver.html)

A conventional hardware approach.

<http://ham.te.hik.se/homepage/sm5bsz/linuxdsp/hware/optiq.htm>

Newer, more code.

As a comment, most of the newer ham work centers on detecting weak EME signals; noise figure and MDS.

A pure sofradio may have dynamic range limitations arising from quantizing precision. But then there's AGC; but then the question becomes exactly where is the AGC?

73,

Steve Stutman

KL7JT/1

On Tue, 24 Jul 2001, Charles Hutton wrote:

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>

> Chuck

-----  
premium-rx-digest Sunday, July 29 2001 Volume 01 : Number 146  
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Date: Wed, 25 Jul 2001 09:56:43 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: (no subject)

Hi,

Here's the SM5BSZ home; better place to start.

<http://ham.te.hik.se/homepage/sm5bsz/>

73,

Steve KL7JT/1

-----  
Date: Wed, 25 Jul 2001 22:41:39 EDT  
From: CLeyson@aol.com  
Subject: Prem-Rx: DSP Backends

Chuck

I have some info on the Kenwood TS-870 if it's any help. The 455kHz I.F. is down-converted to baseband using a 74HC53 as a quadrature mixer. After filtering, the audio is digitized using an AK5340 stereo A-D converter (16 bit ?). A gate array and a pair of Motorola DSP56002's do all the number crunching.

There are several approaches to adding a DSP back-end to a receiver. 1) Digitize the IF signal directly using a fast A-D and then digitally mix and decimate to get quadrature audio signals. e.g. Collins HF2050. 2) Down convert to an I.F. of 25 or 50kHz and then use an audio A-D sampling at 4x the final

I.F. to get I and Q. 3) Down-convert to baseband using a pair of mixers in quadrature and digitize using stereo A-D converters.

#### Advantages and disadvantages

1) Digitizing the final I.F. directly eliminates gain and phase errors in the I and Q quadrature channels. Sideband suppression is excellent but dynamic range suffers because your A-D converter is limited to 12 or 14 bits. (7 bits in an HF2050). However, the decimation filters will improve the situation somewhat. Intersil (formerly HARRIS) do some nice chips that will downconvert 16 bit data to baseband (HSP56114 perhaps ?)

2) A final I.F. of 25kHz or 50kHz gives some improvement. You can sample at 4X using available audio converters (16 to 18 bit typically) giving some 90dB dynamic range. You can do a digital mix and filter in the DSP chip to get I & Q.

3) Direct conversion to baseband gives you the advantage of using 24-bit A-D converters. For example, Cirrus Logic (Crystal Semi) CS5394 is 24 bit and will give 100dB dynamic range. Gain and phase errors in the I and Q channels have to be very small if you want good sideband suppression. In practice you can get about 40dB with 1% components.

There are two sides to the fence. Sample at 4X I.F. and digitally down-convert giving excellent SSB suppression but limited dynamic range or downconvert to baseband to get the dynamic range but loose SSB suppression.....

...As we are talking HF receivers here, I would put dynamic range at the top of my list. Down convert to baseband to get the dynamic range and then take out any gain and phase errors in the I and Q channels digitally !!!

The technique was developed 25 years ago by Raytheon (US PAT 3950750). The error correction is done in the frequency domain rather than in the time domain by using FFTs. Apply a calibration tone in order to measure the gain and phase error and then correct it using a simple vector rotation and scaling operation at each frequency bin. Convert back to the time domain using an IFFT. 80 to 90dB SSB suppression can be achieved providing the analogue electronics is temperature stable !!

A few words of advice regarding DSP chips. For number crunching apps write in assembler, forget high level languages like C. Pick an architecture and instruction set that you are happy with and go for fixed point rather than floating point (it's faster). TI and AD do 16 bit fixed point processors.

My personal preference is Motorola DSP56300 series (24 bit). It gives you that extra dynamic range (not suprising considering Motorola's RF background !). The instruction set makes sense (similar to 6800 mnemonics). DSP56303 is the entry level part, DSP56309 has more onboard memory and the DSP56307 has an additional coprocessor that will run at the core speed (150 MIPS). My only complaint is the lack of data and address bus connectors on the eval boards and that the 56307 is only available in BGA package. Also, the 56300 has an instruction set which is compatible with the 56002 (about to become obsolete any day now).

Best Regards Chris Leyson

-----  
Date: Wed, 25 Jul 2001 20:48:39 -0700 (PDT)  
From: Robert Kelley <pasha@kali.com>  
Subject: Prem-Rx: N7VE mixer

What do you all think of Dan Tayloe's commutating mixer?

I just learned about it the other day but find it hard to believe that nobody tried this obvious adaptation of the commutating filter. I was thinking of building an R2 but maybe I'll build one of those instead....

Robert Kelley, AC7KE

-----  
Date: Wed, 25 Jul 2001 21:04:32 -0700  
From: John Miles <jmiles@pop.net>  
Subject: RE: Prem-Rx: N7VE mixer

Nice thread on rec.radio.homebrew on this, check it out.

- -- jm

- -----Original Message-----

From: Robert Kelley [SMTP:pasha@kali.com] Sent: Wednesday, July 25, 2001 8:49 PM  
To: Premium-Rx  
Subject: Prem-Rx: N7VE mixer

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Robert Kelley, AC7KE

-----  
Date: Thu, 26 Jul 2001 06:57:52 -0400  
From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>  
Subject: Re: Prem-Rx: DSP Backends

- - - = = = = = \_139612111 = = \_ .ALT Content-Type: text/plain;  
charset="us-ascii"; format=flowed

Great post, Chris! That's the nicest explanation of the pros and cons of various processing schemes I've read. Tnx!

Jim Garland W8ZR

At 10:41 PM 7/25/2001 , you wrote:

> Chuck

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> down-converted to baseband using a 74HC53 as a quadrature mixer. After  
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> and decimate to get quadrature audio signals. e.g. Collins HF2050.  
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> 3) Down-convert to baseband using a pair of mixers in quadrature and  
> digitize using stereo A-D converters.

> Advantages and disadvantages

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  - > 4X using available audio converters (16 to 18 bit typically) giving some 90dB
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  - > Q.
  
  - > 3) Direct conversion to baseband gives you the advantage of using 24-bit A-D
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  - > can get about 40dB with 1% components.
  
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  - > ...As we are talking HF receivers here, I would put dynamic range at the top
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- \_139612111==\_ALT Content-Type: text/html;  
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> < font size= 3

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> < blockquote type= cite cite

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- > Chris Leyson

>  
>

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Date: Thu, 26 Jul 2001 08:18:53 -0400  
 From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
 Subject: RE: Prem-Rx: N7VE mixer

**What is this?**

- > -----Original Message-----
- > From: Robert Kelley [SMTP:pasha@kali.com]
- > Sent: Wednesday, July 25, 2001 11:49 PM
- > To: Premium-Rx
- > Subject: Prem-Rx: N7VE mixer
- >
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> Robert Kelley, AC7KE  
 -----

Date: Thu, 26 Jul 2001 10:08:07 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: DSP Backends

It is nice to see the real smart guys come out of the wood work and show us analog people where to connect our outputs....

> -----Original Message-----

> From: CLeyson@aol.com [SMTP:CLeyson@aol.com]

> Sent: Wednesday, July 25, 2001 10:42 PM

> To: Premium-Rx@kahuna.sdsu.edu

> Subject: Prem-Rx: DSP Backends

> Chuck

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- > and phase error and then correct it using a simple vector rotation and
- > scaling
- > operation at each frequency bin. Convert back to the time domain using an
- > IFFT. 80 to 90dB SSB suppression can be achieved providing the analogue
- > electronics is temperature stable !!
  
- > A few words of advice regarding DSP chips. For number crunching apps
- > write in assembler, forget high level languages like C. Pick an
- > architecture
- > and instruction set that you are happy with and go for fixed point rather
- > than
- > floating point (it's faster). TI and AD do 16 bit fixed point processors.
  
- > My personal preference is Motorola DSP56300 series (24 bit). It gives you
- > that
- > extra dynamic range (not suprising considering Motorola's RF backround !).
- > The instruction set makes sense (similar to 6800 nmemonics). DSP56303 is
- > the entry level part, DSP56309 has more onboard memory and the DSP56307
- > has an additional coprocessor that will run at the core speed (150 MIPS).
- > My only complaint is the lack of data and address bus connectors on the
- > eval
- > boards and that the 56307 is only available in BGA package. Also, the
- > 56300
- > has an instruction set which is compatable with the 56002 (about to become
- > obsolete any day now).
  
- > Best Regards
- > Chris Leyson

-----  
Date: Thu, 26 Jul 2001 08:23:42 -0700 (PDT)  
From: Robert Kelley <pasha@kali.com>

Subject: RE: Prem-Rx: N7VE mixer

It's simple and elegant.

There are 4 capacitors and an analog multiplexer (e.g 74CBTLV3253). The multiplexer connects the common RF input to each of the capacitors in sequence at 4x the operating frequency. Differential amplifiers pick up I and Q from opposing pairs of capacitors.

Right, Dan?

- - - 73 de Robert AC7KE

On Thu, 26 Jul 2001, Carcia, Frank A. HS wrote:

> What is this?

> > -----Original Message-----

>> From: Robert Kelley [SMTP:pasha@kali.com]

> > Sent: Wednesday, July 25, 2001 11:49 PM

> > To: Premium-Rx

>> Subject: Prem-Rx: N7VE mixer

> >

> >

> > What do you all think of Dan Tayloe's commutating mixer?

> >

> > I just learned about it the other day but find it hard to believe that nobody tried this obvious adaptation of the commutating filter. I was thinking of building an R2 but maybe I'll build one of those instead....

> >

> > Robert Kelley, AC7KE

-----  
Date: Thu, 26 Jul 2001 21:25:06 +0200

From: Christer Bergstrom <christer.bergstrom@adsum.pp.se

Subject: Prem-Rx: Mixer diodes

dear Sirs

Do anyone know if there is a replacement or a source for HP2900 diodes? Maybe the mixer-diode-chip of the HP3586 could do as an replacement?

best regards

Christer Bergström Viker Sweden I could measure 1:st oscillator voltage to be OK which is just about all that is possible to measure without special fixtures.

and since my measurements has shown that the oscillators provides sufficient signal to the 1:st mixer. I have an which I have thought of borrowing the mixer-diode-chip from, would this be stupid to do?

-----  
Date: Thu, 26 Jul 2001 12:48:14 -0700

From: "Greg Bailey" <gbailey@mail.sdsu.edu

Subject: Prem-Rx: New Member- France Antelme

Gentlemen:

Mr. France Antelme, of Petaluma, CA is our newest member. Petaluma, for those not from the Golden State, is slightly north of San Francisco. Our newest member is employed by Cisco Systems in the area

of System Test of High Speed Fiber Optic transport systems. In addition, he holds the call sign of K6QO and ZS6GO.

Prior to moving to Petaluma, France worked for Grinaker Electronics in South Africa, focusing in the area of military communications and the design of elements of frequency-hopped HF systems including receiver and power amplifier design.

France operates a RA 1792 and plans to both extend his collection of premium receivers, as well as re-establish his activities in homebrewed RF projects.

For those of you wishing to e-mail France, I would suggest you try him at: fantelme@ncal.verio.com

Greg

-----  
Date: Thu, 26 Jul 2001 23:13:44 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: DSP Backends

You're right Frank, I feel pretty humble when the technology gets away from me, and it just did. It's time to retire. Seriously meant Chris, that's a fascinating summary of DSP and I look forward to hearing the audio when it's all up and running. John

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Carcia, Frank A. HS Sent: 26 July 2001 16:08  
To: 'CLeyson@aol.com'; Premium-Rx@kahuna.sdsu.edu  
Subject: RE: Prem-Rx: DSP Backends

It is nice to see the real smart guys come out of the wood work and show us analog people where to connect our outputs....

> -----Original Message-----

> From: CLeyson@aol.com [SMTP:CLeyson@aol.com]  
> Sent: Wednesday, July 25, 2001 10:42 PM  
> To: Premium-Rx@kahuna.sdsu.edu  
> Subject: Prem-Rx: DSP Backends  
> Chuck

> I have some info on the Kenwood TS-870 if it's any help. The 455kHz I.F.  
> is  
> down-converted to baseband using a 74HC53 as a quadrature mixer. After  
> filtering, the audio is digitized using an AK5340 stereo A-D converter (16

> bit ?).  
> A gate array and a pair of Motorola DSP56002's do all the number  
> crunching.

> There are several approaches to adding a DSP back-end to a receiver.  
> 1) Digitize the IF signal directly using a fast A-D and then digitally mix  
> and decimate to get quadrature audio signals. e.g. Collins HF2050.  
> 2) Down convert to an I.F. of 25 or 50kHz and then use an audio A-D  
> sampling at 4x the final I.F. to get I and Q.  
> 3) Down-convert to baseband using a pair of mixers in quadrature and  
> digitize using stereo A-D converters.

- > Advantages and disadvantages
- > 1) Digitizing the final I.F directly eliminates gain and phase errors in
  - > the
  - > I and Q quadrature channels. Sideband suppression is excellent but
  - > dynamic range suffers because your A-D converter is limited to 12 or 14
  - > bits.
  - > (7 bits in an HF2050). However, the decimation filters will improve the
  - > situation
  - > somewhat. Intersil (formerly HARRIS) do some nice chips that will
  - > downconvert
  - > 16 bit data to baseband (HSP56114 perhaps ?)
- > 2) A final I.F. of 25kHz or 50kHz gives some improvement. You can sample
  - > at
  - > 4X using available audio converters (16 to 18 bit typically) giving some
  - > 90dB
  - > dynamic range. You can do a digital mix and filter in the DSP chip to get
  - > I &
  - > Q.
- > 3) Direct conversion to baseband gives you the advantage of using 24-bit
  - > A-D
  - > converters. For example, Cirrus Logic (Crystal Semi) CS5394 is 24 bit and
  - > will
  - > give 100dB dynamic range. Gain and phase errors in the I and Q channels
  - > have to be very small if you want good sideband suppression. In practice
  - > you
  - > can get about 40dB with 1% components.
- > There are two sides to the fence. Sample at 4X I.F. and digitally
  - > down-convert
  - > giving excellent SSB suppression but limited dynamic range or downconvert
  - > to baseband to get the dynamic range but loose SSB suppression.....
- > ...As we are talking HF receivers here, I would put dynamic range at the
  - > top
  - > of my list. Down convert to baseband to get the dynamic range and then
  - > take
  - > out any gain and phase errors in the I and Q channels digitally !!!
- > The technique was developed 25 years ago by Raytheon (US PAT 3950750).
  - > The error correction is done in the frequency domain rather than in the
  - > time
  - > domain by using FFTs. Apply a calibration tone in order to measure the
  - > gain
  - > and phase error and then correct it using a simple vector rotation and
  - > scaling
  - > operation at each frequency bin. Convert back to the time domain using an
  - > IFFT. 80 to 90dB SSB suppression can be achieved providing the analogue
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- > has an instruction set which is compatable with the 56002 (about to become
- > obsolete any day now).
  
- > Best Regards
- > Chris Leyson

-----  
 Date: Thu, 26 Jul 2001 23:43:22 -0500  
 From: "Bob Nickels" <ranickel@mwci.net>  
 Subject: Re: Prem-Rx: Mixer diodes

- > Do anyone know if there is a replacement or a source for HP2900 diodes?
  - > Maybe the mixer-diode-chip of the HP3586 could do as an replacement?
- Speaking of the HP-3586 Selective Level Meter (which is a premium receiver, sorta) - does anyone here know anything about these things? Specifically, how to interpret the error codes and how to fix whatever is causing mine to display one? (No manual!)

Thanks, Bob

-----  
 Date: Fri, 27 Jul 2001 03:17:06 EDT  
 From: CLeyson@aol.com  
 Subject: Prem-Rx: DSP Backends

There is a very good article by Gerrit Buhe (DL9GFA) on HF digital receivers in the July edition of RadCom (pp. 53-56). It focuses mainly on sampling at  $4xIF$  using 12-14 bit converters followed by digital down conversion. Well worth a read.

I will try to post some backround information on digital error correction in the next week or so. To date I've used a 16-bit soundcard driven by a direct conversion receiver with fixed gain. All of the signal processing has been done on recorded .wav files. Sideband supression is 90dB. Should have a DSP version up and running in a few weeks, I will keep everyone posted.

I forgot to metion a few more methods of converting RF to digits. Firstly, undersampling....

Imagine an IF signal at say  $F_i$  Hz. If you were to  $4X$  oversample in order to get I and Q then the sample rate would be  $4xF_i$  and the sample interval would be  $1/4F_i$  seconds. In other words you need to take 4 samples per IF cycle. As the IF bandwidth is limited to only a few kHz you could skip an entire IF cycle and sample one cycle later in order to get the same information. The sample interval would now be  $1/(1+1/4)F_i$  seconds. If you skip N cycles the sample rate becomes  $1/(N+1/4)F_i$  seconds, and the sampling frequency  $F_s = F_i/(N+1/4)$ .



The above argument assumes that the sample point is moved + 90 degrees through the IF cycle each time. If you move the sample point by -90 deg between each sample the sampling interval becomes  $1/(N-1/4)F_i$  seconds and the sampling frequency equals  $F_s = F_i/(N-1/4)$ . This now gives an expression for the sampling frequency of,  $F_s = F_i/(N +/ - 1/4)$ .

To simplify the numbers, assume  $F_i = 456\text{kHz}$  and  $N = 5$ . The two sampling rates would be  $456/(5-0.25) = 96\text{kHz}$  or  $456/(5+0.25) = 86.85714\dots\text{kHz}$ .

For an IF of  $455\text{kHz}$  and  $N = 5$  then  $F_s = 95.7894\dots\text{kHz}$  or  $86.666666\text{ kHz}$ . In either case a sample rate of  $96\text{kHz}$  or  $86.66\dots\text{kHz}$  is not too difficult to generate.

Undersampling allows you to digitize a relatively high IF frequency ( $455\text{kHz}$ ) using a single audio A-D converter. Quadrature errors are less of a problem and dynamic range is increased. Disadvantages are as follows:- A good quality S/H amp is needed between the IF and A-D converter and clock jitter starts to play more of a dominant role.

Why the S/H amp ? A lot of audio A-D converters available today use single bit delta-sigma converters that oversample at 128 or 256 times the audio sample rate. The output from these converters is an average of the last 128 or 256 samples that has been digitally filtered to remove anything above  $2x F_s$ . Their real sampling rate is  $256x F_s$ .

This does of course beg the question, why not feed RF directly into an  $256x$  oversampling converter ? Perhaps an area for some experimentation !

Finally, bandpass delta-sigma converters. Some bright spark had the idea of applying single-bit A-D delta-sigma conversion techniques directly at IF. Marconi have done a lot of useful work in this area and use this technique in the HF2550 receiver. Other manufacturers such as Harris, Rockwell, HP, Motorola, Qualcomm also have patents. Although the technique is some 10 years old there don't appear to be any single or multichip converters available from any of the well established semiconductor manufacturers. I think most of the design effort is going into Silicon for the cellular phone market.

Chris

-----  
Date: Fri, 27 Jul 2001 10:44:44 -0400  
From: "Chuck Rippel" <avsl@erols.com>  
Subject: Prem-Rx: Les Locklear

Just an FYI for the list....

Member Les Locklear remains in the hospital where he has been for over 2 weeks. I am not sure as to the full details of his illness but I know it involves a perforated colon.

On the bright side, I spoke to his wife night-before-last and she said he was doing better and would be home in about 5 days. He has over 500 e-mails waiting for him when he gets home and doubtless he'll fill us in when he is able.

For those of you not familiar with Les, he is a historian of vintage equipment, a prolific writer and a skilled listener.

=====  
=== 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, 27 Jul 2001 23:45:40 -0700  
From: "Charles Hutton" <chutton1@qwest.net>  
Subject: RE: Prem-Rx: DSP Backends

Chris:

This is a fine post.

I have a few questions & comments that I have interspersed.

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of CLeyson@aol.com Sent: Friday, July 27, 2001 12:17 AM  
To: Premium-Rx@kahuna.sdsu.edu

Subject: Prem-Rx: DSP Backends

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Imagine an IF signal at say  $F_i$  Hz. If you were to  $4X$  oversample in order to get I and Q then the sample rate would be  $4xF_i$  and the sample interval would be  $1/4F_i$  seconds. In other words you need to take 4 samples per IF cycle. As the IF bandwidth is limited to only a few kHz you could skip an entire IF cycle and sample one cycle later in order to get the same information. The sample interval would now be  $1/(1 + 1/4)F_i$  seconds. If you skip  $N$  cycles the sample rate becomes  $1/(N + 1/4)F_i$  seconds, and the sampling frequency  $F_s = F_i/(N + 1/4)$ .

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To simplify the numbers, assume  $F_i = 456\text{kHz}$  and  $N = 5$ . The two sampling rates would be  $456/(5 - 0.25) = 96\text{kHz}$  or  $456/(5 + 0.25) = 86.85714\dots\text{kHz}$ .

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This does of course beg the question, why not feed RF directly into an  $256x$  oversampling converter? Perhaps an area for some experimentation!

\*\*\* CH: Feeding RF straight into the ADC is something that I have thought about but a leaning away from right now. The first problem I see is that I do not know of any ADC's of more than 16 bits except the Crystal Semi audio ADC's. I'm assuming that we'll want a bit more than 16 bits so that the FIR's can get 100 dB or better ultimate rejection, and so that dynamic range will be in the 100 dB class also. I suppose we may not need more than 16 bits in regards to dynamic range if we have some AGC in the RF. If so, life becomes easier and we could do FIR's on the RF then a direct conversion to baseband. So there is a choice to be made here: RF with AGC and a 16 bit ADC or IF and a 24 bit ADC.

\*\*\* CH: Is it correct to call it "undersampling" above? As we need to obey Nyquist at the information change rate (that is, the modulation rate not the IF frequency), sampling of an AM waveform with modulation of up to 4 KHz would have a Nyquist rate of 8 KHz and is therefore "properly sampled". This is just lingo, but I don't want to be using lingo that no one else is using.....

\*\*\* CH: As for using the 256 x oversampling ADC's (all are 1 bit converters, right?), wouldn't they have to have an input BW (not sampling rate) of  $256 * 455$  or well over 10 MHz? Do they really have that kind of BW? If so, we're in business.

Finally, bandpass delta-sigma converters. Some bright spark had the idea of applying single-bit A-D delta-sigma conversion techniques directly at IF. Marconi have done a lot of useful work in this area and use this technique in the HF2550 receiver. Other manufacturers such as Harris, Rockwell, HP, Motorola, Qualcomm also have patents. Although the technique is some 10 years old there don't appear to be any single or multichip converters available from any of the well established semiconductor manufacturers. I think most of the design effort is going into Silicon for the cellular phone market.

Chris

\*\*\* CH: And for those wanting to read a little more, here are some references. They slant towards cell phones (as Chris mentioned), but a lot of the issues are the same.

"A High Performance HF Software Radio, N.C. Davies, IEEE HF Radio Systems And Techniques Conference Publication 474, date unknown (sorry!)

"The Software Radio Concept", E. Buracchini, IEEE Communications, September 2000.

"Sample Rate Conversion For Software Radio", T. Hentschel, IEEE Communications, August 2000.

"The Digital Front End Of Software Radio Terminals", T. Hentschel, IEEE Personal Communications, August 1999.

"Digital IF Filter Technology for 3G Systems", D. Chester, IEEE Communications, Feb. 1999.

"Direct Bandpass Sampling of Multiple Distinct RF Signals", D. Akos, IEEE Transactions on Communications, 1999.

-----  
Date: Sat, 28 Jul 2001 15:50:04 -0700  
From: matt parkinson <mparkinson1@socal.rr.com>  
Subject: Re: Prem-Rx: WATKINS-JOHNSON WJ-8718A/MFP

HELP !!!!!

> Hi I just bought a WATKINS JOHNSON WJ 8718A/MFP and I am having with trying to operate this radio. Is there a fault indicator if so how do I run a test if anyone knows ? I put the ant on the RF input and I tuned to 15.000Mhz and all I hear is noise RF type but no signal. I just can't figure out if I am doing something wrong or there is something wrong with the receiver. I guess I need a copy of the manual and i will pay for any labor and time for the copy . Thanks Matt Parkinson.

>

>

-----  
Date: Sun, 29 Jul 2001 13:54:45 EDT  
From: CLeyson@aol.com  
Subject: Prem-Rx: DSP Backends

Sorry Gerald, my mistake. I should have typed Marconi H2550 and NOT HF2550. (See Receivers Past and Present p.273) This is the only receiver I know of that uses bandpass delta-sigma A-D conversion. I also have a Rockwell HF2050 and agree it does a nice job of pulling weak signals out of the noise. Very good performer considering that it only uses a 7-bit A-D to digitize the final IF.

> \*\*\* CH: Feeding RF straight into the ADC is something that I have thought  
> about but a leaning away from right now. The first problem I see is that I  
> do not know of any ADC's of more than 16 bits except the Crystal Semi audio  
> ADC's. I'm assuming that we'll want a bit more than 16 bits so that the  
> FIR's can get 100 dB or better ultimate rejection, and so that dynamic range  
> will be in the 100 dB class also. I suppose we may not need more than 16  
> bits in regards to dynamic range if we have some AGC in the RF. If so, life  
> becomes easier and we could do FIR's on the RF then a direct conversion to  
> baseband. So there is a choice to be made here: RF with AGC and a 16 bit ADC  
> or IF and a 24 bit ADC.

The Crystal Semiconductor CS5394 (24 bit) gives a typical dynamic range of only 117dB. They apply a signal at -60dBFS so that any distortion components are below the noise level then add 60dB to get dynamic range. The THD+ Noise figure (103dB typical) is measured by applying a signal at -1dBFS and includes the distortion components.

AKM Semiconductor (<http://www.asahi-kasei.co.jp>) offer the AK5394 which has similar performance figures. Personally I would prefer better performance from a 24-bit A-D.

> \*\*\* CH: Is it correct to call it "undersampling" above? As we need to obey  
> Nyquist at the information change rate (that is, the modulation rate not the  
> IF frequency), sampling of an AM waveform with modulation of up to 4 KHz  
> would have a Nyquist rate of 8 KHz and is therefore "properly sampled". This  
> is just lingo, but I don't want to be using lingo that no one else is  
> using.....

Strictly speaking the term "undersampling" is misleading, it is really downconversion and 4X oversampling. Your're quite right about Nyquist and bandwidth, something I left out of my post.

Here's another look at "undersamplig" from a different perspective.

Imagine you have an IF of 456kHz bandlimited to 48kHz (-100dB bandwidth) followed by A-D converter that has a sample and hold amplifier on its input stage sampling at 96kHz. Because of aliasing the S/H will have a response at 5x96kHz or 480kHz. This will downconvert the 456kHz IF to 24kHz. As the A-D is taking samples at a rate of 96kHz you get the 4x oversampling from which you can generate I and Q.

One of the disadvantages of this technique is all the extra spurious signals that can be aliased down to 24kHz. Filtering requirements are rather severe if you want to get a guaranteed 100dB dynamic range.

In the long run it is probably far better to mix down to 24 or 25kHz final IF and then use 128x or 256x oversampling 1-bit delta-sigma converter.

> \*\*\* CH: As for using the 256 x oversampling ADC's (all are 1 bit converters,  
> right?), wouldn't they have to have an input BW (not sampling rate) of 256 \*  
> 455 or well over 10 MHz? Do they really have that kind of BW? If so, we're  
> in business.

I couldn't resist the temptation and just had to try it out. I've wired up a Crystal Semi CS5331A 18-bit dual A-D to a CS4331 18-bit dual DAC. The A-D and D-A both have a master clock of 12.288MHz

and the A-D is set up to generate serial clock and sync signals. Serial data from the A-D is fed straight into the DAC. The A-D output sample rate is 48kHz, (12.288MHz/256).

RF drive of about 0dBm from a sig gen at 12.290MHz gives a 2kHz sinewave output from the DAC. 2nd and 3rd harmonics (4 and 6kHz) are about -60dBc, which is roughly equal to the harmonic level from the generator.

I need to try this out at 10.7MHz with a few filters ahead of the A-D to remove the generator harmonics.

Also, the data sheet for the CS5331 says that the delta-sigma A-D samples at 128 x Fs where Fs is the output sample rate. This would imply sampling at 6.144MHz at the input for Fs = 48kHz. The only response I get at 6.144MHz is 30dB down on that at 12.288MHz.

Chris

-----  
premium-rx-digest Tuesday, July 31 2001 Volume 01 : Number 147  
-----

Date: Mon, 30 Jul 2001 09:48:05 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Mixer diodes

Discrete diodes try 1N5711 or 1N5712 They are the old HP2800 style diodes. There were matched pairs or quads but these were the basic parts matched pairs or built into quad chips. The 1N5711 is the old HP2800 the 5712 is little more sensitive but lower break down voltage.

> -----Original Message-----

> From: Christer Bergstrom [SMTP:christer.bergstrom@adsum.pp.se]

> Sent: Thursday, July 26, 2001 3:25 PM

> To: Premium-Rx@kahuna.sdsu.edu

> Subject: Prem-Rx: Mixer diodes

> dear Sirs

> Do anyone know if there is a replacement or a source for HP2900 diodes?

> Maybe the mixer-diode-chip of the HP3586 could do as an replacement?

> best regards

> Christer Bergström

> Viker

> Sweden

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> that is possible to measure without special fixtures.

>

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> sufficient

> signal to the 1:st mixer. I have an which I have thought of borrowing

> the mixer-diode-chip from, would this be stupid to do?

-----  
Date: Mon, 30 Jul 2001 11:43:56 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: DSP Backends

This is very interesting and I would really like to know more.

> -----Original Message-----

> From: CLeyson@aol.com [SMTP:CLeyson@aol.com]

> Sent: Friday, July 27, 2001 3:17 AM

> To: Premium-Rx@kahuna.sdsu.edu

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> Chris

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Date: Mon, 30 Jul 2001 10:33:29 -0700  
From: "John Miles" <jmiles@pop.net>  
Subject: Re: Prem-Rx: DSP Backends

Seconded, this belongs in QEX or even QST. I've been meaning to look into the state of the art in ADC chips for awhile now, so I'm hitting 'print' on every post for later review.

-- jm

----- Original Message -----

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
To: <CLeyson@aol.com>  
> ; <Premium-Rx@kahuna.sdsu.edu>  
> Sent: Monday, July 30, 2001 8:43 AM  
Subject: RE: Prem-Rx: DSP Backends  
> This is very interesting and I would really like to know more.

> > -----Original Message-----

>> From: CLeyson@aol.com [SMTP:CLeyson@aol.com]  
> > Sent: Friday, July 27, 2001 3:17 AM  
> > To: Premium-Rx@kahuna.sdsu.edu  
>> Subject: Prem-Rx: DSP Backends  
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> >  
> > Chris  
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-----  
Date: Mon, 30 Jul 2001 12:23:57 -0700  
From: "Hutton, Charles" <charles.hutton@attws.com>  
Subject: RE: Prem-Rx: DSP Backends

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Does anyone know of a reason to prefer one over the other, performance wise?

> Charles (Chuck) Hutton  
> Systems Architecture And Technology  
> Wireless Local Technology Group  
> AT&T Wireless Services  
> PO Box 97059  
> Redmond, WA 98073 (USPS only)  
> 14500 NE 87th St.  
> Redmond, WA 98052 (FEDEX/UPS)  
> 425-702-2938 Voice \* 425-702-2826 FAX charles.hutton@attws.com \*  
- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of John Miles Sent: Monday, July 30, 2001 10:33 AM  
To: Premium-Rx@kahuna.sdsu.edu  
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> > Chris  
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-----  
Date: Mon, 30 Jul 2001 15:44:00 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: DSP Backends

I wonder if this is an advantage when the PC has a Stereo input? I would think it would save hardware on the analog side if a very fast A/D was used. I would like to get my feet wet using the PC and the 6.4 KHz base band (single output) from my RA6830. I wonder if there is any software out there to play with? ???fc

> -----Original Message-----

> From: Hutton, Charles [SMTP:charles.hutton@attws.com]

> Sent: Monday, July 30, 2001 3:24 PM

> To: 'Premium-Rx@kahuna.sdsu.edu'

> Subject: RE: Prem-Rx: DSP Backends

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> [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of John Miles  
> Sent: Monday, July 30, 2001 10:33 AM  
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> To: <CLeyson@aol.com>  
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> Sent: Monday, July 30, 2001 8:43 AM

> Subject: RE: Prem-Rx: DSP Backends

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>>> Subject: Prem-Rx: DSP Backends

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Date: Mon, 30 Jul 2001 16:10:46 -0400  
From: jeffa@ix.netcom.com  
Subject: Prem-Rx: Specialty receivers available

A fellow I know in the San Jose, California has some interesting specialty receivers he'd like to sell, which are the following:

Two each: RCS-4 receivers, manufactured by BR Communications (now TCI) of Sunnyvale. These are "chirpsounder" receivers used to plot, on a built-in CRT, ionospheric path conditions between the receiver and a compatible transmitter (of which there are a number of transmitters in operation around the world). I have an RCS-5 (a later version of the receiver) as one of my receivers at home, and it always gets a big "wow" from anyone who sees it in operation. (For additional information on Chirpsounders check out the following website: <http://www.pacificsites.com/~brooke/RCS-5A.shtml> ).

Two each: RSS-4 spectrum monitor receivers (again, manufactured by BR communications). These receivers were used for HF frequency management systems, and the Spectrum Monitor was used to determine which parts of the HF spectrum were in use. Essentially, it sweeps from 2 MHz to 30 MHz and provides a plot of frequency occupancy on a built-in CRT - think of it as an HF spectrum analyzer. This model also can be put into monitor mode for listening to USB, LSB, AM, or FM (I have an RSS-5 (the next model) and it doesn't have FM). Again, a cool receiver, if for nothing else but the "wow" factor.

He's asking \$250 for each receiver, or \$1000 for the lot which also includes a TCS-4 Chirpsounder Transmitter (the transmitter is also \$250 if sold seperately).

The receivers all work, but the transmitter's condition is unknown. He has docs for all the units (on CD).

These babies are HEAVY - much much heavier than the later RSS-5 and RCS-5 which I have, but the reason is that they are much more stoutly built. Each receiver weighs on the order of 280 pounds or so

(but they come apart, or so I've been told) and must be shipped by truck. I believe the shipping container is included with each.

If anyone is interested, please contact me and I'll put you in touch with the seller.

Thanks,

- - Jeff, WA6AHL

-----  
Date: Mon, 30 Jul 2001 19:53:16 -0400  
From: "Ed Tanton N4XY" <n4xy@att.net>  
Subject: Prem-Rx: Mackay-Dymek DA-100 Active Antenna schematic

Somebody was looking for a schematic on this Active Antenna a week or so ago. I just found one. Look about 1/3 of the way down under the paragraph entitled "Antennas". The URL is: <http://www.pacificsites.com/~brooke/RCS-5A.shtml#Listening>. This is an interesting website about "Chirp Sounders". If you have trouble printing these jpg's let me know. I have converted them to PDFs and between the two, they're readable.

73 Ed Tanton N4XY <n4xy@arrl.net>

Ed Tanton N4XY 189 Pioneer Trail Marietta, GA 30068-3466

website: <http://www.n4xy.com>

LM: ARRL QCWA AMSAT & INDEXA; SEDXC NCDXA GACW QRP-ARCI OK-QRP QRP-L #758  
K2 (FT) #00057

-----  
Date: Tue, 31 Jul 2001 02:21:17 +0100  
From: "Paul Reeves" <paul@paulg8gja.free-online.co.uk>  
Subject: RE: Prem-Rx: DSP Backends

On 30 Jul 2001, at 12:23, Hutton, Charles wrote:

> I thought I would also mention that there are alternatives to oversampling  
> at 4x to get I and Q channels. You may sample at the Nyquist rate and then  
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> Surely the main reason for 4x oversampling is the ease of obtaining accurate quadrature signals as a simple 0, -1, + 1 multiplication sequence is all that is required. Computationally much easier, logic gating on the ADC o/p is all that is needed.

Changing the topic slightly, I have some original papers arround (somewhere) on bandpass sigma-delta ADCs written by Marconi & STC Technology. If anyone is interested I could probably manage to scan them for distribution.

.....and going totally off-topic a repeated request for any info on the AN/SLR-23 hf receiver system. Somebody out there must know something!

regards,

Paul Reeves g8gja

paul@paulg8gja.free-online.co.uk

> -----Original Message-----

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> [mailto:owner-premium-rx@kahuna.sdsu.edu]On Behalf Of John Miles

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> To: Premium-Rx@kahuna.sdsu.edu

> Subject: Re: Prem-Rx: DSP Backends

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> >

> > > -----Original Message-----

>>> From: CLeyson@aol.com [SMTP:CLeyson@aol.com]

>>> Sent: Friday, July 27, 2001 3:17 AM

>>> To: Premium-Rx@kahuna.sdsu.edu

>>> Subject: Prem-Rx: DSP Backends

>>>

>>> There is a very good article by Gerrit Buhe (DL9GFA) on HF digital

>>> receivers

>>> in the July edition of RadCom (pp. 53-56). It focuses mainly on sampling

>>> at

>>> 4xIF using 12-14 bit converters followed by digital down conversion.

>>> Well worth a read.

>>>

>>> I will try to post some backround information on digital error

> correction

>>> in the next week or so. To date I've used a 16-bit soundcard driven by

>>> a direct conversion receiver with fixed gain. All of the signal

> processing



> > > has been done on recorded .wav files. Sideband suppression is 90dB.  
 > > > Should have a DSP version up and running in a few weeks, I will keep  
 > > > everyone posted.  
 > > >  
 > > >  
 > > > I forgot to mention a few more methods of converting RF to digits.  
 > > > Firstly, undersampling....  
 > > >  
 > > > Imagine an IF signal at say  $F_i$  Hz. If you were to 4X oversample in order  
 > > > to get I and Q then the sample rate would be  $4F_i$  and the sample  
 > interval  
 > > > would be  $1/4F_i$  seconds. In other words you need to take 4 samples per  
 > > > IF cycle. As the IF bandwidth is limited to only a few kHz you could  
 > skip  
 > > > an entire IF cycle and sample one cycle later in order to get the same  
 > > > information. The sample interval would now be  $1/(1 + 1/4)F_i$  seconds. If  
 > > > you skip N cycles the sample rate becomes  $1/(N + 1/4)F_i$  seconds, and  
 > > > the sampling frequency  $F_s = F_i/(N + 1/4)$ .  
 > > >  
 > > > The above argument assumes that the sample point is moved + 90 degrees  
 > > > through the IF cycle each time. If you move the sample point by -90 deg  
 > > > between each sample the sampling interval becomes  $1/(N - 1/4)F_i$  seconds  
 > > > and the sampling frequency equals  $F_s = F_i/(N - 1/4)$ . This now gives an  
 > > > expression for the sampling frequency of,  $F_s = F_i/(N \pm 1/4)$ .  
 > > >  
 > > > To simplify the numbers, assume  $F_i = 456\text{kHz}$  and  $N = 5$ . The two sampling  
 > > > rates would be  $456/(5 - 0.25) = 96\text{kHz}$  or  $456/(5 + 0.25) = 86.85714\dots\text{kHz}$ .  
 > > >  
 > > > For an IF of 455kHz and  $N = 5$  then  $F_s = 95.7894\dots\text{kHz}$  or  $86.666666\text{ kHz}$ .  
 > > > In either case a sample rate of 96kHz or 86.66..kHz is not too difficult  
 > > > to  
 > > > generate.  
 > > >  
 > > > Undersampling allows you to digitize a relatively high IF frequency  
 > > > (455kHz)  
 > > > using a single audio A-D converter. Quadrature errors are less of a  
 > > > problem  
 > > > and dynamic range is increased. Disadvantages are as follows:-  
 > > > A good quality S/H amp is needed between the IF and A-D converter and  
 > > > clock jitter starts to play more of a dominant role.  
 > > >  
 > > > Why the S/H amp ?  
 > > > A lot of audio A-D converters available today use single bit delta-sigma  
 > > > converters that oversample at 128 or 256 times the audio sample rate.  
 > > > The output from these converters is an average of the last 128 or 256  
 > > > samples that has been digitally filtered to remove anything above  $2x F_s$ .  
 > > > Their real sampling rate is  $256x F_s$ .  
 > > >  
 > > > This does of course beg the question, why not feed RF directly into an  
 > > > 256x oversampling converter ? Perhaps an area for some experimentation !  
 > > >  
 > > > Finally, bandpass delta-sigma converters.  
 > > > Some bright spark had the idea of applying single-bit A-D delta-sigma  
 > > > conversion techniques directly at IF. Marconi have done a lot of useful

> > > work in this area and use this technique in the HF2550 receiver. Other  
> > > manufacturers such as Harris, Rockwell, HP, Motorola, Qualcomm also  
> > > have patents. Although the technique is some 10 years old there don't  
> > > appear to be any single or multichip converters available from any of  
> > > the well established semiconductor manufacturers. I think most of the  
> > > design effort is going into Silicon for the cellular phone market.

> > >  
> > >  
> > > Chris  
> > >  
> > >  
> > >  
> >

>

-----  
Date: Mon, 30 Jul 2001 21:43:57 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: Mackay-Dymek DA-100 Active Antenna schematic

Ed Tanton N4XY wrote:

> Somebody was looking for a schematic on this Active Antenna a week or so  
> ago. I just found one. Look about 1/3 of the way down under the paragraph  
> entitled "Antennas". The URL is:  
> <http://www.pacificsites.com/~brooke/RCS-5A.shtml#Listening> .  
> 73 Ed Tanton N4XY <n4xy@arrl.net>

>

Ed, Thank you. Your find much appreciated. There isn't a perfect match between my boards and the diagrams, but there is plenty there to get me on the way. The JPG's are quite readable on the screen, but printing might be a different story due to the faded background.

When I get going on the 'resurrection', I'll let you know how I amke out.

Thanks again.

Arthur, VE3ZV Waterford, Ontario, Canada

-----  
Date: Tue, 31 Jul 2001 06:31:22 -0400  
From: "David J. Windisch" <davidw@copper.net>  
Subject: Prem-Rx: Re: [Antennas] Mackay-Dymek DA-100 Active Antenna schematic

I still have a few (< 20) of the DRAKE TR7 pre-driver boards:

3 stages 20+ dB of stable, adjustable gain 12V power epoxy board approx 3" X 4" X 1" deep

I use 'em for K9AY loops, QRP xmtrs, etc.

\$17 @ w/schematic ppd conus

73, Dave, K3BHJ

-----  
Date: Tue, 31 Jul 2001 09:44:03 -0700  
From: Walter Salmaniw <salmaniw@home.com>  
Subject: Prem-Rx: Racal assistance

Hi, fellas! My Racal 6772 has a damaged optical encoder. The encoder disk has been scratched and worn, so I'm hoping to find a replacement. Any ideas? Thanks,.....Walt.

-----  
Date: Tue, 31 Jul 2001 14:07:51 -0400  
From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>  
Subject: Re: Prem-Rx: Racal assistance

- - - - - \_597411712= = \_ALT Content-Type: text/plain;  
charset= "us-ascii"; format= flowed

Hi Walt, Optical encoders tend to be very similar in design, and most are interchangeable with one another. The key pieces of information are the voltage (typically 5V) and the number of pulses per revolution. The latter can usually be verified by counting the slits in the disk. Do you have a photo of the bad encoder, or have you measured its dimensions? Also, any specifications or part number or even the manufacturer would be helpful. I'm just completing a homebrew project using optical encoders and have several on hand. They turn up on ebay frequently. Most look like a simple pot, with a 1/4 inch diameter shaft, and four terminals (or wires) on the rear. There are more sophisticated ones, and ones designed for attaching to a rotating motor shaft, but 90% are the very simple, basic type. Regards,

Jim Garland

At 12:44 PM 7/31/2001 , you wrote:

> Hi, fellas! My Racal 6772 has a damaged optical encoder. The encoder  
> disk has been scratched and worn, so I'm hoping to find a  
> replacement. Any ideas? Thanks,.....Walt.

- - - - - \_597411712= = \_ALT Content-Type: text/html;  
charset= "us-ascii"

> < font size= 3

> Hi Walt,

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> Regards,

>

> Jim Garland

>

> At 12:44 PM 7/31/2001 , you wrote:

> <blockquote type= cite cite

> Hi, fellas! My Racal 6772 has a damaged optical encoder. The encoder disk has been scratched and worn, so I'm hoping to find a replacement. Any ideas? Thanks,.....Walt.

>

>

- - - - - \_597411712= = \_ALT--

-----

Date: Tue, 31 Jul 2001 14:35:42 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: [Fwd: I need some information....]

This is a multi-part message in MIME format. - -----3FE1C27C394D8192DDFC3E26 Content-Type: text/plain; charset=us-ascii Content-Transfer-Encoding: 7bit

Can anyone help this gentleman?

- -----3FE1C27C394D8192DDFC3E26 Content-Type: message/rfc822 Content-Transfer-Encoding: 7bit Content-Disposition: inline

Return-Path: <FaridH@iis.com>

> Received: from exch1480.iisweb.com ([12.105.165.126]) by supernova.dimensional.com (8.11.4/8.11.4) with ESMTP id f6UJPax15340 for <robert@sherweng.com>  
> ; Mon, 30 Jul 2001 13:25:11 -0600 (MDT) Received: by exch1480.iisweb.com with Internet Mail Service (5.5.2650.21) id <P3ASRNJC>  
> ; Mon, 30 Jul 2001 12:30:25 -0700 Message-ID:  
<37725841A362D4119CA400508BCF60DCA2B297@exch1480.iisweb.com>

From: Farid Hatefi <FaridH@iis.com>  
To: "'robert@sherweng.com'" <robert@sherweng.com>

Subject: I need some information.... Date: Mon, 30 Jul 2001 12:30:24 -0700 MIME-Version: 1.0 X-Mailer: Internet Mail Service (5.5.2650.21) Content-Type: text/plain; charset="iso-8859-1" X-Mozilla-Status2: 00000000

Robert,

I was searching for some information about R-5000 on the net and I landed on your page "<http://www.sherweng.com/se3specs.html>" with all those test results, nice job. I am kind of stuck here with my R-5000 and I hope you can help me. I wanted to control my R-5000 with my computer. I realized that I needed an IF-232 and IC-10 kit from Kenwood. When I called them they said they dont carry this any more. So I did more search and I found out Radio Shack has a kit very similar to IF-232 so I bought it. Then I ordered the IC's that I needed for R-5000 from another distributor. The only problem that I have now is I dont know what are the pinout on the back of R-5000. There is no reference to those pinouts in the manual. On the other hand the Radio Shack interface has only RXD and TXD and GND pins but based on what have seen around it seems R-5000 has also RTS and CTS signal. I have two questions, do you have any idea about the pinout on the back of R-5000 for computer interface and, second, do you know if I need all those pins to talk to my computer or RXD and TXD will do the job for me? Any input is appreciated. Thanks in advance.

regards

Farid

- -----3FE1C27C394D8192DDFC3E26--

Date: Tue, 31 Jul 2001 19:05:10 -0700 (PDT)  
From: Rodney Bunt <rodney\_bunt@yahoo.com>  
Subject: Prem-Rx: IF-232 clone and pinouts

For connector info see the Kenwood Site.

<http://216.133.235.165/Amateur/Connectors/Connectors.pdf>

for a 'cheap and simple' IF-232 try this....

<http://krasnodar.online.ru/hamradio/cat-knw.htm>

Kenwood have made life difficult in that the TTL is inverted in regard to the RS-232 sence (if one uses a MAX232 chip one has to invert the TTL in and out to get comms programs to work...

Rodney Bunt VK2KTZ

- --- Rob & Terri Sherwood <rob@sherweng.com

> wrote:

> Can anyone help this gentleman?

> ATTACHMENT part 2 message/rfc822

> From: Farid Hatefi <FaridH@iis.com

> To: "robert@sherweng.com" <robert@sherweng.com

> Subject: I need some information....

> Date: Mon, 30 Jul 2001 12:30:24 -0700

> Robert,

> I was searching for some information about R-5000 on the net and I landed on  
> your page " <http://www.sherweng.com/se3specs.html>" with all those test  
> results, nice job. I am kind of stuck here with my R-5000 and I hope you can  
> help me. I wanted to control my R-5000 with my computer. I realized that I  
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> they dont carry this any more. So I did more search and I found out Radio  
> Shack has a kit very similar to IF-232 so I bought it. Then I ordered the  
> IC's that I needed for R-5000 from another distributor. The only problem  
> that I have now is I dont know what are the pinout on the back of R-5000.  
> There is no reference to those pinouts in the manual. On the other hand the  
> Radio Shack interface has only RXD and TXD and GND pins but based on what  
> have seen around it seems R-5000 has also RTS and CTS signal. I have two  
> questions, do you have any idea about the pinout on the back of R-5000 for  
> computer interface and, second, do you know if I need all those pins to talk  
> to my computer or RXD and TXD will do the job for me? Any input is  
> appreciated. Thanks in advance.

> regards

> Farid

==== = Regards,

Rodney Bunt [rodney\\_bunt@yahoo.com](mailto:rodney_bunt@yahoo.com) M:0414-437412 F:9899-9451

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-----  
premium-rx-digest Tuesday, August 7 2001 Volume 01 : Number 148  
-----

Date: Tue, 31 Jul 2001 19:59:04 -0700

From: "France Antelme" <[fantelme@ncal.verio.com](mailto:fantelme@ncal.verio.com)

Subject: Re: Prem-Rx: New Member- France Antelme

Hello all,

Thanks for the intro, Greg. I've been reading the archives for a while and have been impressed with the posts on the list. look forward to a lot of lively discussion with everyone. I've just taken delivery of an RA1792 + BITE+ Backlighting

I'm very impressed so far.

- -France K6QO/ZS6GO-

- ----- Original Message -----

From: "Greg Bailey" <gbailey@mail.sdsu.edu  
To: "Premium" <Premium-Rx@kahuna.sdsu.edu  
> Sent: Thursday, July 26, 2001 12:48 PM  
Subject: Prem-Rx: New Member- France Antelme  
> Gentlemen:

> Mr. France Antelme, of Petaluma, CA is our newest member. Petaluma, for  
> those not from the Golden State, is slightly north of San Francisco. Our  
> newest member is employed by Cisco Systems in the area of System Test of  
> High Speed Fiber Optic transport systems. In addition, he holds the call  
> sign of K6QO and ZS6GO.

> Prior to moving to Petaluma, France worked for Grinaker Electronics in  
> South Africa, focusing in the area of military communications and the design  
> of elements of frequency-hopped HF systems including receiver and power  
> amplifier design.

> France operates a RA 1792 and plans to both extend his collection of premium  
> receivers, as well as re-establish his activities in homebrewed RF projects.

> For those of you wishing to e-mail France, I would suggest you try him at:  
> fantelme@ncal.verio.com

>  
> Greg

-----  
Date: Tue, 31 Jul 2001 22:32:13 -0500  
From: "Joe Watson" <wwatson@mmcable.com  
Subject: Prem-Rx: Last call for an excellent pair of Racal RA6790/GM's

I need to sell two excellent Racal RA6790/GM receivers which have full sets of filters. Both have just been serviced by Gary Wingerd.

Let me know if you have an interest in either or both.....or they will be headed for eBay.

Joe W5WBR

-----  
Date: Tue, 31 Jul 2001 22:24:11 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu  
Subject: Prem-Rx: New Member: Dave Robinson

Gentlemen:

Dave Robinson, located in Midland, Michigan is our newest member.

Dave's interest in mil-spec receivers goes back a good 25 years and = includes a Collins R-389 and an RCA AN/SRR-11 among others. Currently = he owns a Harris RF-590 and a R2368B (RF-590A). Dave is another one of = those VLF/LF spectrum buffs, and in fact, is a member of the Longwave = Club of America. = 20

He is an EE with an extensive background in analog circuit design, = however, for the past 15 years he has worked in the factory automation = area.

I assume your VLF/LF types will want to welcome our newest member? His = address is :  
AG8B@aol.com

Greg

-----  
Date: Wed, 1 Aug 2001 12:36:44 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member- Tracy Gardner (Racal IEEE)

Gentlemen:

Tracy Gardner, who learned of our List while searching Google, is our newest member. He operates a Racal RA 1792, which he purchased last year. Unfortunately, his operating time has been limited because he is "self-building" a new home.

Tracy's main interest is in listening for Non Directional Beacons (NDBs) in the LF band, in fact his 1792 has the optional 100Hz CW filter and a 1Hz readout. Operating his 1792 via the IEEE bus is a primary goal of our new member. If you have information on this form of operation, please contact Tracey at: tracey.gardner@ntlworld.com

Our newest member has been a ham operator (G5VU a re-issue) for the past 33 years.

Welcome to the group- always nice to have another UK member.

Greg

-----  
Date: Wed, 1 Aug 2001 15:49:31 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: New Member- Tracy Gardner (Racal IEEE)

Hi All, I tried the remote software by Colin Trass [www.visualradios.com](http://www.visualradios.com) for the RA6830 over the IEEE488 interface and it works pretty well. Tracy should check him out to see if the 1792 will work with the same software. I might have to bring a computer into the radio shack. WA1GFZ, fc

> -----Original Message-----

> From: Greg Bailey [SMTP:gbailey@mail.sdsu.edu]

> Sent: Wednesday, August 01, 2001 3:37 PM

> To: Premium

> Subject: Prem-Rx: New Member- Tracy Gardner (Racal IEEE)

>

> Gentlemen:

> Tracy Gardner, who learned of our List while searching Google, is our

> newest

> member. He operates a Racal RA 1792, which he purchased last year.

> Unfortunately, his operating time has been limited because he is

> "self-building" a new home.

> Tracy's main interest is in listening for Non Directional Beacons (NDBs)

- > in
- > the LF band, in fact his 1792 has the optional 100Hz CW filter and a 1Hz
- > readout. Operating his 1792 via the IEEE bus is a primary goal of our new
- > member. If you have information on this form of operation, please contact
- > Tracey at: [www.tracey.gardner@ntlworld.com](mailto:www.tracey.gardner@ntlworld.com)
  
- > Our newest member has been a ham operator (G5VU a re-issue) for the past
- > 33
- > years.
  
- > Welcome to the group- always nice to have another UK member.
  
- > Greg

-----  
 Date: Wed, 1 Aug 2001 17:49:51 -0400  
 From: "Chuck Rippel" <[avsl@erols.com](mailto:avsl@erols.com)>  
 Subject: Re: Prem-Rx: New Members also Les Locklear and John Wilson

With Tracy, this looks like there are 1/2 dozen of us who are active in the LF bands chasing NDB's or other targets.

I'd be interested in knowing what others are using for antennas?

As an interesting aside....

Isn't it astounding that once they meet our list moderator, these new members (and perhaps also seasoned ones as well) don't run in the opposite direction and quickly at that.

On to a more serious matter, I spoke to Les Locklear by phone last afternoon. He is home with an excellent prognosis but very weak. Les has never been in the hospital in his life so this was a first time for him. He asked me to convey his greetings to the list and ask your understanding if you sent him an E-Mail but didn't get a reply back immediately.

Les doesn't say all that much but I know he is reading the information from the list and genuinely enjoys the dialogue.

I have been delving in the MW bands and have capitalized on some of John Wilson's thoughts on the Racal 6790GM. Mine is filtered for 2.9, 3.4, 4.2 and 7.2 kc and I find it very effective on the MW bands. A bit more so that the RF-590 in that the audio is a bit more full and understandable.

- > Tracy Gardner, who learned of our List while searching Google, is our newest
- > member. He operates a Racal RA 1792, which he purchased last year.
- > Unfortunately, his operating time has been limited because he is "self-building"
- > a new home.

- > Tracy's main interest is in listening for Non Directional Beacons (NDBs) in the
- > LF band....

> snipppp < ----- Chuck Rippel, WA4HHG R390A List Co-Administrator

Reply To: [wa4hhg@amsat.org](mailto:wa4hhg@amsat.org)

To learn more about R390A's visit: <http://www.avslvb.com/R390A/index.html>

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 -----



-----  
Date: Thu, 2 Aug 2001 22:21:39 -0700 (PDT)  
From: Rodney Bunt <rodney\_bunt@yahoo.com>  
Subject: Prem-Rx: Collins HR-2050 and Preselector 'pinout' ?

Can anyone tell me if a Collins HF-8064 Agile HF Preselector (designed for the HF-80 Series) is compatible with the Collins HF-2050 Preselector port ????

Anyone have a "pinout" for the HF-8064, I have one for the HF-2050... Maybe I could figure it out. The pinout has "binary" for Khz, Mhz etc...

One never knows what info is out there for the asking on this Reflector.

Cheers,

Rodney Bunt VK2KTZ

rodney\_bunt@yahoo.com

===== Regards,

Rodney Bunt rodney\_bunt@yahoo.com M:0414-437412 F:9899-9451

-----  
Do You Yahoo!? Make international calls for as low as \$.04/minute with Yahoo! Messenger <http://phonecard.yahoo.com/>

-----  
Date: Wed, 1 Aug 2001 23:21:20 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Re: Prem-Rx: New Members also Les Locklear and John Wilson

Regarding the following comment (see below) recently posted to the List by our BA expert, aka as the "Rippel Kid"-

Let it be know that the Rippel Kid and I have been throwing verbal rocks at each other for the past three years. It all started just after he got rear-ended in his Pick Up truck and then soon after attacked by his horse. Prior to these two events he was just your typical dysfunctional BA mechanic.

On second thought, I'll bet it was the massive radiation exposure off of those S-meters in his stash of R-390 goodies.

> As an interesting aside....

> Isn't it astounding that once they meet our list moderator, these new  
> members (and perhaps also seasoned ones as well) don't run in the opposite  
> direction and quickly at that.

-----  
Date: Fri, 3 Aug 2001 17:42:47 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: New Members also Les Locklear and John Wilson

Now don't be too hasty about that pickup, I've ridden in it around Kulpville, and apart from Chuck being eager to drive over the top of some Yankee's car on the way to the restaurant it was a pleasant ride, and for a Brit the sheer size of the vehicle was pretty amazing. John

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Greg W. Bailey Sent: 02 August 2001 08:21  
To: AVSL@erols.com; Premium-Rx@kahuna.sdsu.edu

Subject: Re: Prem-Rx: New Members also Les Locklear and John Wilson

Regarding the following comment (see below) recently posted to the List by our BA expert, aka as the "Rippel Kid"-

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> members (and perhaps also seasoned ones as well) don't run in the opposite  
> direction and quickly at that.

-----  
Date: Fri, 3 Aug 2001 10:24:39 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu  
Subject: Prem-Rx: My apology, to Les and John

Gentlemen:

In a recent e-mail- I authored a social rebuttal to my good friend Chuck Rippel for his comment (see below). Unfortunately, Les and John's name got into the subject line.

Be advised, the rebuttal stands, I only apologize for the incorrect subject.

Just for the record, Chuck and I participate in this social banter in total fun, and typically off line :-)

Greg

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Greg W. Bailey Sent: Wednesday, August 01, 2001 11:21 PM  
To: AVSL@erols.com; Premium-Rx@kahuna.sdsu.edu  
Subject: Re: Prem-Rx: New Members also Les Locklear and John Wilson

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> members (and perhaps also seasoned ones as well) don't run in the opposite  
> direction and quickly at that.

-----  
Date: Fri, 3 Aug 2001 13:53:23 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com  
Subject: RE: Prem-Rx: New Members also Les Locklear and John Wilson

Hi John, Yankees drive pickups too. They work great for hauling radios. Good luck to Les. My Dad had the same problem corrected by removing 8 inches of the large pipe. At 75 he can eat like he is 18 again. fc

> -----Original Message-----

> From: John Wilson [SMTP:johnwilson@freezone.co.uk]

> Sent: Friday, August 03, 2001 11:43 AM

> To: Greg W. Bailey

> Cc: premium

> Subject: RE: Prem-Rx: New Members also Les Locklear and John Wilson

> Now don't be too hasty about that pickup, I've ridden in it around

> Kulpsville, and apart from Chuck being eager to drive over the top of some

> Yankee's car on the way to the restaurant it was a pleasant ride, and for

> a

> Brit the sheer size of the vehicle was pretty amazing.

> John

> -----Original Message-----

> From: owner-premium-rx@kahuna.sdsu.edu

> [mailto:owner-premium-rx@kahuna.sdsu.edu]On Behalf Of Greg W. Bailey

> Sent: 02 August 2001 08:21

> To: AVSL@erols.com; Premium-Rx@kahuna.sdsu.edu

> Subject: Re: Prem-Rx: New Members also Les Locklear and John Wilson

>

> Regarding the following comment (see below) recently posted to the List by

> our BA expert, aka as the "Rippel Kid"-

>

> Let it be know that the Rippel Kid and I have been throwing verbal rocks

> at

> each other for the past three years. It all started just after he got

> rear-ended in his Pick Up truck and then soon after attacked by his horse.

> Prior to these two events he was just your typical dysfunctional BA

> mechanic.

> On second thought, I'll bet it was the massive radiation exposure off of

> those S-meters in his stash of R-390 goodies.

>

> > As an interesting aside....

> >

> > Isn't it astounding that once they meet our list moderator, these new

> > members (and perhaps also seasoned ones as well) don't run in the

> > opposite

> > direction and quickly at that.

>

-----  
Date: Fri, 3 Aug 2001 14:44:02 -0400

From: "Chuck Rippel" <avsl@erols.com>

Subject: Prem-Rx: RE:Otherness

That was my diesel F350. I don't remember who John and I ran over up in Kulpsville during that trip. I DO remember that he and I were sitting in the cab waiting for Ben Hester so we could go to dinner and a RATHER large person asked if they could hitch a ride with us..... We quickly declined using the excuse that the bench seat in the cab was full once Ben arrived but then I remember remarking quietly that it "was only 1 ton truck....."

> Hi John,

> Yankees drive pickups too. They work great for hauling radios.

> Good luck to Les. My Dad had the same problem corrected by removing

> 8 inches of the large pipe. At 75 he can eat like he is 18 again. fc

Thats ok Frank. Although he is a nice enough guy, Bailey would NEVER make it here in the south..... I can assure you of that. He'd make that pickup truck comment while sipping his wine in front of some farmers in a general store/beer hall and that would be that.

Word would get around and he'd end up loosing that prime horse barn cleaning job he'd landed.....

Thats ok though, I know the guy that owns a large pig farm a piece down the road, he's hiring....

Great on your dad. I think Les is going to do just fine. - ----- 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 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: Fri, 3 Aug 2001 21:28:53 -0700

From: "France Antelme" <fantelme@ncal.verio.com

Subject: Prem-Rx: Manuals for RA1792, Front panel refurbishment

This is a multi-part message in MIME format.

- -----=\_NextPart\_000\_003F\_01C11C63.4B139880 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

Hi all,

Anyone know where I can lay my hands on complete user and maintenance = manuals for my RA1792?

Also want to have the front panel refurbished to look as close to new as = possible - or find a replacement. Any suggestions?

- -France K6QO/ZS6GO-

- -----=\_NextPart\_000\_003F\_01C11C63.4B139880 Content-Type: text/html; charset="iso-8859-1" Content-Transfer-Encoding: quoted-printable

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> < STYLE

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> </HEAD

> < BODY bgColor= 3D#ffffff

> Hi all,  
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> Also want to have the front panel = refurbished to= 20 look as close to new as possible - or find a replacement. Any= 20 suggestions?  
> -France = K6QO/ZS6GO-  
>  
>

- -----= \_NextPart\_000\_003F\_01C11C63.4B139880--

-----  
Date: Sun, 05 Aug 2001 03:25:59 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Prem-Rx: Valley Products Corp SDR1000 Data Rx

I find myself in possession of a like-new and working unit as above. I used it about 10 years ago as a subscriber to receive real-time stock quotes. With the advent of the internet, it became both redundant and expensive to use. Right now its gathering dust, but it seems too nice a unit to dispose of.

The thought occurs to use it as a 70mhz/10.7mhz

> audio downconverter for satellite subcarrier reception. The manufacturer states input is 950-1450 mhz, with

> 2000 pll tuned channels @ 250 khz spacing, selected by dip switch.

Does anyone on the list have any information, possibly a service manual, schematic, or switch setting info on this item?

Please email me off the list if you can help.

Arthur Shulman

-----  
Date: Tue, 7 Aug 2001 23:02:56 -0700  
From: "refmon" <monitor@referencevideo.com>  
Subject: Prem-Rx: premium diversity combiners to go with the rx's

This is a multi-part message in MIME format.

- -----= \_NextPart\_000\_0088\_01C11F95.183FB120 Content-Type: text/plain; charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

Hello, group,

This is another of my "anyone have info on an accessory for premium rx" = messages-I'm looking for manual(s), copy of same, or perhaps someone = with familiarity. I've just bought qty 1 of a:

Defense Electronics (a product of Hartman Systems) Model DCA-77 Pre-D/Post-D diversity combiner system, SN H015

This is a pre-detection/post-detection diversity receiving combiner = which can operate on IF or AF and drive the selection process either via = receiver AGC's or by an internal noise analysis subsystem. = 20

At this point, I'm running frequency diverse WWV signals into the unit = at 455KHz and the unit indicates that it is seeing and deciding about = which signal(s) to output- there's my problem...without setup & op = instructions, the output is a puzzle. I have not at this time, tried = the post-detection, audio + agc modes.

The unit is absolutely untouched inside with all seals intact...

Anybody out there have any info or docs on this thing? I will, of course, pay for manuals, etc.  
many thanks

John Collins Tualatin, Oregon

- -----=\_NextPart\_000\_0088\_01C11F95.183FB120 Content-Type: text/html; charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

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> < STYLE

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> </HEAD

> < BODY bgColor= 3D#ffffff

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of= 20 a:

> Defense Electronics

> (a product of Hartman = Systems)

> Model DCA-77 Pre-D/Post-D diversity = combiner= 20 system, SN H015

> This is a pre-detection/post-detection = diversity= 20 receiving combiner which can operate on IF  
or AF and drive the selection = process= 20 either via receiver AGC's or by an internal noise analysis  
= subsystem. = 20

> At this point, I'm running frequency = diverse WWV= 20 signals into the unit at 455KHz and the  
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problem...without = setup= 20 & op instructions, the output is a puzzle. I have not at this =  
time,= 20 tried the post-detection, audio + agc modes.

> The unit is absolutely untouched inside = with all= 20 seals intact...

> Anybody out there have any info or docs = on this= 20 thing? I will, of course, pay for manuals,  
etc.

> many thanks

> John Collins

> Tualatin, = Oregon

>

>

- -----=\_NextPart\_000\_0088\_01C11F95.183FB120--

-----  
premium-rx-digest Thursday, August 16 2001 Volume 01 : Number 149

-----  
Date: Wed, 08 Aug 2001 19:30:08 -0700  
From: matt parkinson <mparkinson1@socal.rr.com>  
Subject: Prem-Rx: WJ-8716/MFP

YES this is a microprocessor front end and I have a problem. I just did a bite test on this receiver and found that it has a error code of 0120. the book says that it sums up all the errors and now I am trying to figure out just what this means. Does anyone have a clue. I am afraid it is telling me that almost all the boards have a problem if that is the case I got a junker here. I need help in figuring out this mess. CODE 0120 . Thanks Matt Parkinson

-----  
Date: Wed, 8 Aug 2001 23:29:58 EDT  
From: AG8B@aol.com  
Subject: Prem-Rx: Harris RF-590A Preselector Info

The preselector in my RF-590A is a 10323-6000-02. Is this a digital bandpass tuned model? It looks very similiar to the 10215-6600 that Murphy is selling. Anyone have any documentation on it? Thanks

-----  
Date: Thu, 9 Aug 2001 00:59:47 -0400  
From: "Peter Gottlieb" <nerd@bellatlantic.net>  
Subject: Re: Prem-Rx: Harris RF-590A Preselector Info

I got one from Murphy a while back and it was a newer rev than the one in my 590A so I did my bypass mod to it and it's in there now. A few people sent me their presels for the mod and I noticed that there seem to be a lot of different revs out there as I never saw two the same.

This has been covered before: unless you are right on top of a strong transmitter you will probably do better without the presel.

Nobody seems to have the docs on the thing, not even in the manuals. I reverse engineered mine back when but I have a lot of papers and don't know offhand where I filed that stuff. There were two boards, one of which just has the filters on it. The other has the control logic to receive data from the processor via a serial bus and activate relays to switch filters, sometimes some protection, the signal path circuits, and IIRC a switchable high pass section or two.

Peter

- ----- Original Message -----

From: <AG8B@aol.com>  
To: <premium-rx@kahuna.sdsu.edu>  
> Sent: Wednesday, August 08, 2001 11:29 PM  
Subject: Prem-Rx: Harris RF-590A Preselector Info  
> The preselector in my RF-590A is a 10323-6000-02. Is this a digital  
> bandpass tuned model? It looks very similiar to the 10215-6600 that Murphy  
> is selling. Anyone have any documentation on it? Thanks

-----  
Date: Thu, 9 Aug 2001 07:20:18 EDT  
From: Ka9p@aol.com  
Subject: Prem-Rx: Poor Man's DSP backend

The recent thread on DSP back ends has me salivating, but unable to identify a quick and easy way to implement it. Has anyone tried using a TenTex RX320 board, either "as is" tuned to 455 khz (with the resultant upconversion and downconversion back through 455 khz on its way to the 12 khz DSP IF) or with the main receiver IF patched through directly to the 320's 2nd IF? I don't see any immediate reason why, with a little impedance and level matching, and possibly some AGC, this wouldn't make an interesting post-filter add-on to a 6790/GM. Or for that matter for several receivers if a memory was set up for each IF. But I expect if it won't, someone here can tell me why. Thanks for any input. Scott

-----  
Date: Thu, 9 Aug 2001 09:27:38 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: Poor Man's DSP backend

Hi,

Have tried this; can work well. As you state you have to match Z and signal levels. I've used some simple baluns and ununs and some BNC attenuators. Most fun was using it with SP-600. Have had AGC problems, not surprisingly.

Also think that there is fun to be had using preselector such as RF-551A, HP 8640B as LO, good WJ mixer, and RX-320,340 or HF-2050 or WJ-1000 as IF. Certainly use of HF receive converters is nothing new. When I was a kid we used a VFO or trusty Lafayette sig gen as LO for "Frankenstein" converters. Just don't have the spare 50 hours these days.

Steve Stutman

On Thu, 9 Aug 2001 Ka9p@aol.com wrote:

> The recent thread on DSP back ends has me salivating, but unable to identify  
> a quick and easy way to implement it. Has anyone tried using a TenTex RX320  
> board, either "as is" tuned to 455 khz (with the resultant upconversion and  
> downconversion back through 455 khz on its way to the 12 khz DSP IF) or with  
> the main receiver IF patched through directly to the 320's 2nd IF? I don't  
> see any immediate reason why, with a little impedance and level matching, and  
> possibly some AGC, this wouldn't make an interesting post-filter add-on to a  
> 6790/GM. Or for that matter for several receivers if a memory was set up for  
> each IF. But I expect if it won't, someone here can tell me why. Thanks for  
> any input. Scott

-----  
Date: Thu, 9 Aug 2001 15:26:26 -0400  
From: "Chuck Rippel" <avsl@erols.com>  
Subject: Re: Prem-Rx: Harris RF-590A Preselector Info

I have one in mine. Ended up routing the RF input around it and picked up about .5uv as I recall.  
> The preselector in my RF-590A is a 10323-6000-02. Is this a digital  
> bandpass tuned model? It looks very similiar to the 10215-6600 that Murphy is  
> selling. Anyone have any documentation on it? Thanks

----- 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  
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1967 Contract EAC R390A #1023

All in regular use as premier Shortwave Broadcast DX Receivers -and- Vintage AM Amateur use - ----  
-----

-----  
Date: Thu, 09 Aug 2001 13:35:38 -0700  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: Harris RF-590A Preselector Info

At 11:29 PM 8/8/01 -0400, AG8B@aol.com wrote:

> The preselector in my RF-590A is a 10323-6000-02. Is this a digital  
> bandpass tuned model? It looks very similiar to the 10215-6600 that Murphy  
> is selling. Anyone have any documentation on it? Thanks



I have a manual with alignment instructions, schematics etc for the 10215-6600. I too had a devil of a time finding this info, until I discovered that it was described as the "A-19 preselector assembly for the R-2368/URR receiver".

Anyway, I intend to make copies shortly and am happy to provide same for postage and copy costs (as yet undetermined, but probably \$3-4). I will copy the schematics on 11x17" sheets to avoid breaking them into bits and pieces.

If anyone is interested, let me know.

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Fri, 10 Aug 2001 16:35:51 +0200  
From: "John Wilson" <[johnwilson@freezone.co.uk](mailto:johnwilson@freezone.co.uk)>  
Subject: Prem-Rx: TenTec RX 340

Good morning all, I just unpacked a new Ten Tec RX 340 and started to do basic measurements on it. When receiving a single tone in SSB or CW, there seems to be a second tone behind the wanted signal which varies at a different rate than the real signal when tuning slowly, and which is affected in frequency by varying the DSP bandwidth. Anyone have any comments on this or anything else based on hands-on experience of the 340?? John

- ----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Sat, 11 Aug 2001 08:07:36 EDT  
From: [CLeyson@aol.com](mailto:CLeyson@aol.com)  
Subject: Prem-Rx: DSP Backends

I managed to scan the RadCom article on DSP backends. If anyone would like a copy please email me. You'll need Acrobat 4.

No concrete results from the CS5394 A-D tests yet and the paper on frequency domain error correction is half finished - another week should do it.

Interesting comments from Scott on the TenTex RX320 board, would like to hear more.

As for Harris RF590 pre-selectors I have a model 10073-6550 preselector fitted (Rev A. with no serial number). It's a doubly tuned bandpass filter using binary switched capacitor banks and two pairs of hi-Q inductors. One pair for 2-8MHz and the other for 8-30MHz. Coupling between the filters is inductive and the insertion loss is about 4dB in a 50ohm system. Is covered by US Pat 4138654. Wonder if they ever did a motor driven cap with switched inductor model ?

Regards Chris Leyson

-----  
Date: Sun, 12 Aug 2001 14:38:07 EDT  
From: [CLeyson@aol.com](mailto:CLeyson@aol.com)  
Subject: Prem-Rx: A few noise figure measurements

Having gotten around to fixing the RF590 (leaky cap in the AF amp) and the HF2050 (EPROMS in the wrong order !!) I've done a few noise figure measurements using a homebrewed noise source. I used a GEC A2087 (CV2171) noise diode. (The US equivalent is the 5722.)

Noise figure is found by using the "Y-factor" method. The receiver output or IF noise is measured with a cold source (noise tube off) and a "hot" source (noise tube on). The ratio of the two measurements is called the "Y factor". If the output power from the noise generator is known, then the noise figure is:-

$NF = 10\log( ENR/(Y-1) )dB$  where ENR is the source excess noise ratio

ENR is defined as  $(T_{hot}-T_{cold})/T_0$  where  $T_0$  is the reference temp (290K)

For a noise diode the excess noise ratio is given by:  $ENR = 20 R_d I_d$

where  $R_d$  is the source output resistance (50ohm) and  $I_d$  is the tube anode current in Amps. (The above equation assumes that  $T_{cold} = 290K$  or 16.7C) For 50ohm system the  $ENR =$  tube current in mA.

Normally the receiver output noise would be measured with an audio power meter. I tried this but found that the flicker noise was as much as 3 to 4dB and made an accurate determination of Y impossible.

I had to use an HP3585 spectrum analyzer to average out the flicker noise. Analyzer settings are, RBW 1kHz, VBW 1Hz, center frequency 1.5kHz, span 0Hz, sweep time 200s and vertical scale 1dB/div. The narrow video BW and long sweep time does a very good job of averaging out the flicker noise. 1kHz resolution BW and a center frequency of 1.5kHz was chosen so as to measure the noise in the center of audio passband. Analyzer traces were downloaded into a PC and the readings (1000 points/trace) were averaged to get an accurate figure for Y.

Here are the measurements. All were done at 10.5MHz, USB with AGC off and AF gain about 50% RF/IF gain at or close to maximum.

ENR Y NF(dB) RA1792 with preamp 6.0 2.04 7.6 RA1792 no preamp 20.0 2.05 12.8 HF2050 25.0 1.73 15.3 RF590 with preselector 25.0 1.50 17.0

Converting noise figure to MDS taking into account bandwidth

$MDS(dBm) = -174 + NF + 10\log(BW)$

For 10dB (S+N)/N add 9.54dB to the MDS calculated above. Subtract 30dB to convert to Watts then get the RMS voltage (PD) into 50ohm. For generator EMF just double the PD (assumes 50ohm generator and load).

BW(Hz) MDS(dBm) PD(uV) EMF(uV) Published Figure(uV) RA1792 with preamp 3000 -131.6 0.17 0.35 1.00(EMF) RA1792 no preamp 3000 -126.4 0.32 0.64 1.00(EMF) HF2050 2800 -124.1 0.41 0.82 0.82(EMF) RF590 with preselector 2800 -122.5 0.50 1.00 0.35(?) RF590 without preselector 2800 -126.5 0.31 0.63 0.35(?)

Published sensitivity measurements for the RA1792 and HF2050 are stated in uV(EMF) or generator open circuit voltage for a 10dB(S+N)/N ratio. The RF590 manual doesn't state either EMF or PD (loaded terminal voltage) and there is no mention of a preselector. RF590 sensitivity figure without the preselector was calculated and not measured. (Previously measured preselector insertion loss of 4dB was assumed). For the RA1792 I am not sure if the published sensitivity includes a preamp or not.

So which is the best receiver ? I can't decide - they all do a good job.

Regards Chris

.

-----  
Date: Mon, 13 Aug 2001 11:57:24 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: A few noise figure measurements

hi All, A week of vacation yielded me a day to play radio. I cascaded the IF filter module of a RA6830 and the performance was great. I used a MWA130 amplifier to make up for the loss. Bit still passes. The shape factor of the dual filter set up ended up around 2.5 at minus 60 DB except for the 6 kHz filter being around 1.6. I looked up the specs of some of the racal filters and found them not great in some cases. The narrow ones seemed a little fat at - 60 dB. In all cases they were better than spec. The noise figure / MDS remained the same. This was interfaced to my HOT ROD 6830 and the I have never heard a better sounding radio on CW. AM the high end was a little suppressed by the 6 KHz filter but still sounds fine. Two radios were set to local 50 KW WTIC and compared. I used the MA2232 tuning aide on CW to tune in CW signals with the 300 Hz filter. I have a 1 KHz wide filter selection for the broad mode. I have not checked the SSB performance yet but the filter specs are pretty tight to begin with. All my testing was 10 dB above the noise floor as the reference. The generator was increased 60 dB and the radio was tuned to find the same output audio level off center frequency. If I increased the generator another 10 dB now 80 dB above the noise floor the synthesizer crud started coming through for close in signals. At some point I will test the two filter modules alone to establish the real filter performance. I heard other people use the same filters I think Harris. I suggest this modification to anyone with the room to shoe horn another set of filters in a radio. You guys with RA6790 and RA1792 units have lots of room to fit this modification. It is really worth the time and effort. Nothing like a rain storm during vacation! fc

> -----Original Message-----

> From: CLeyson@aol.com [SMTP:CLeyson@aol.com]

> Sent: Sunday, August 12, 2001 2:38 PM

> To: premium-rx@kahuna.sdsu.edu

> Subject: Prem-Rx: A few noise figure measurements

> Having gotten around to fixing the RF590 (leaky cap in the AF amp)

> and the HF2050(EPROMS in the wrong order !!) I've done a few noise

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> where Rd is the souce output resistance (50ohm) and Id is the tube anode

> current in Amps. (The above equation assumes that Tcold = 290K or 16.7C)

> For 50ohm system the  $ENR = tube\ current\ in\ mA$ .

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> meter. I tried this but found that the flicker noise was as much as 3 to

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> and long sweep time does a very good job of averaging out the flicker

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> measure the noise in the center of audio passband. Analyzer traces were  
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> For generator EMF just double the PD (assumes 50ohm generator and load).

> BW(Hz) MDS(dBm) PD(uV) EMF(uV) Published

> Figure(uV)  
> RA1792 with preamp 3000 -131.6 0.17 0.35 1.00(EMF)  
> RA1792 no preamp 3000 -126.4 0.32 0.64  
> 1.00(EMF)HF2050 2800 -124.1 0.41 0.82

> 0.82(EMF)  
> RF590 with preselector 2800 -122.5 0.50 1.00  
> 0.35(?)  
> RF590 without preselector 2800 -126.5 0.31 0.63  
> 0.35(?)

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> in uV(EMF) or generator open circuit voltage for a 10dB(S+ N)/N ratio.  
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> and there is no mention of a preselector. RF590 sensitivity figure  
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> preselector insertion loss of 4dB was assumed). For the RA1792 I am not  
> sure if the published sensitivity includes a preamp or not.

> So which is the best receiver ? I can't decide - they all do a good job.

> Regards  
> Chris

>

>

>

> .

-----  
Date: Mon, 13 Aug 2001 18:34:18 -0400  
From: Geoff Greer <greer86@attglobal.net>  
Subject: Prem-Rx: Norlin displays

Hi,

I recently picked up a couple of Norlin (Aiken) SR2090 receivers. I'm looking for displays and manuals. Anyone have a display or 2 they are willing to part with? Does anybody have any leads on a LCD re builder/manufacture that could make some new ones?

Regards, Geoff Greer  
Geoff Greer Amadeus Surplus  
wj8617b@earthlink.net greer86@attglobal.net

-----  
Date: Mon, 13 Aug 2001 19:18:23 -0700  
From: "Calvinf15" <calvinf15@earthlink.net>  
Subject: Prem-Rx: Specs for WJ-8716 HF RX?

Hi Folks,

I have an almost complete manual for the WJ-8716 HF RX. Someone must have removed the 2 pages of receiver specs to do a performance test and forgot to return them to my book. Would anyone be so kind as to scan the spec pages so I can compare my measurements against what the specs should have been when this rig was new? Thanks in advance.

Adam N1GX

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Date: Thu, 16 Aug 2001 06:22:21 -0700  
From: "Calvinf15" <calvinf15@earthlink.net>  
Subject: RE: Prem-Rx: The "mystery" of S/N measurements...?

Hi John,

Unfortunately my noise slot measurements took a back burner to a few other pressing projects, and I cannot quantify your measurements. Your idea makes sense, however, but I don't know the shape of your notch filter, nor have I tried such a test. I suspect that this NPRFOM idea never gained popularity due to the construction of a suitable set of calibrated notch filters at labs all over the world. The test does seem to address the issues of ever-reducing channel spacing on our crowded HF and VHF bands.

What noise power (ENR or otherwise) does your noise generator put out? How is the notch filter constructed and what are its particulars?

I see that Chris Leyson had a fun/busy weekend making noise-figure measurements and comparing them to MDS specs. I do not usually make NF measurements on the Audio baseband due to the flicker noise (which Chris points out), although it does give the best picture of the entire RF-IF-Baseband chain. Most prem-Rx rigs provide either 455 KHz or 21.4 MHz IF outputs and I prefer this route.

Also puzzling why the better "notch figure" scores were associated with poorer sounding receivers. Another data point that we cannot rely only on specs, however they often provide a common ground from which to continue investigation.

I think it was John Miles who was interested a few weeks backe in making quantitative comparisons of various sensitivity and intermod performance tradeoffs. Wes Hayward W7ZOI does an excellent job of this in Chap 8 of "Radio Frequency Design". Chap 8 is worth the \$30 alone, but the rest of the book is chock full of good ideas. He defines a figure of merit which he calls the "Receiver Factor", formulated by subtracting Input Intercept from Noise Figure (he first put this idea forth in a 1979 paper titled "More thoughts on receiver performance specifications" QST Nov 79, pp48-49). He goes on to compare the receiver factor (RF) of several configurations, for example, adding a preamp in front of a receiver. The results are not as intuitive as I first guessed, as one can formulate a curve from which to base a system design. This process is made easier if you download the windoze version of HP Appcad which runs the math for you very easily (it is here: [www.hp.woodshot.com](http://www.hp.woodshot.com)). I had fun playing with this and decided on a suitable NF/Gain for a preamp for my systems.

I think the RF figure of merit has merit :)

Adam N1GX

- -----Original Message-----

From: John Reed [mailto:[jreed@ponca.net](mailto:jreed@ponca.net)] Sent: Wednesday, August 15, 2001 6:17 PM  
To: Calvinf15

Subject: Re: Prem-Rx: The "mystery" of S/N measurements...?

Calvinf15 wrote:

> Hi Folks,

> A bit green on the posts here in the group, but I thought I'd offer up some  
> basic app notes and other goodies that are available on the web. Please  
> goto WJ's web page (<http://www.wj.com/technotes/index.asp>) and see their  
> archive of classic tech notes. Honorable mentions go to the 2-part series  
> on "RX Dynamic Range" with some good info in the "High Dynamic Range  
> Receiver Parameters". Part two of the former describes the Noise Power  
> Ratio Figure of Merit (NPRFOM) that never gained much favor (possibly due to  
> the need for notch filters?). Bob Watson makes a compelling argument for  
> NPRFOM, Noise Figure (NF) and Desensitization Dynamic Range (DDR) as a set  
> of three basic measurements from which most other specs can be derived  
> (SFDR, IP3, MDS, SNR, etc).

> Obviously, WJ argues the merits of receivers which can work in relatively  
> dense signal environments. Some of us might not need this capablility (go  
> ahead, build that 30 dB gain, 2 dB NF, -53 dB IP3 wiband preamp!). MANY  
> posts have been applied to the construction of front end preamps for this  
> deaf rig or that, some at the obvious expense of IP3 and most other  
> descriptions of dynamic range. We just need to know the signal environment  
> in which we operate. There have been recent posts regarding the reduction  
> of channel spacing from an (antiquated?) 20 KHz down to 5 KHz for Dynamic  
> Range testing at the ARRL labs, and NPRFOM seems to attack this problem  
> using a white noise approach that extends the basic (and somewhat limited)  
> two-tone IMD methods which are commonly used. Can anybody shed light on why  
> the NPRFOM never caught on? I plan to build a set of notch filters and  
> compare some receivers with this method in the near future. Has anybody out  
> there had experience with this FOM/technique?

Hi Adam,

I just got through building a notch filter and have tried this testing method. I couldn't get the method to work as outlined in the W-J notes. I had to keep increasing the power of the noise generator with

each iteration, and I finally ran out of generator. I finally settled on a more simple method of doing this that seems to work well. What I did was tune the receiver in the notch then increase the noise power to give + 3 dB over noise floor on the audio meter with the attenuator set to zero. Then I tuned out of the notch and increased the attenuator to again give + 3 dB over noise floor. This represents a sort of dynamic range in the notch. Here are some measurements of various receivers I have here:

Racal RA6772E 58 dB Racal RA6793A 59 dB Harris RF-590 61 dB Harris RF-550 59 dB Sylvania R1414 6 dB (I was really surprised at this, I repeated it several times) JRC NRD-525 64 dB This was a modified receiver with several ESKA add-ons SAIT MR-1411 48 dB Eddystone 958/3 42 dB

I'm not sure what these measurements are telling me. The NRD-525, which turned out with the best reading isn't what I consider the best receiver in crowded band conditions. The RA6793A is the best, but it isn't the best measurement. The most sensitive receiver is the Sylvania, but it has an absolutely terrible measurement. I guess I'll close the book on this effort. Nice idea, but I don't know what it means. Any thoughts?

73, John, KA5QEP

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premium-rx-digest Thursday, August 23 2001 Volume 01 : Number 150

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Date: Thu, 16 Aug 2001 09:20:53 -0500  
From: Peter.Patton@lawson.com  
Subject: Prem-Rx: Plessey 2282A

I have a Plessey 2282A in a matching Bud Classic II cabinet that is redundant to my needs. It is near mint in appearance, works great and has copies of the operators and service manuals with it. I would trade it for, or towards, a Collins 851S-1 or sell it for the best offer. Email me for a jpeg if you want to see it. Pete Patton

---

Date: Thu, 16 Aug 2001 18:16:56 -0700  
From: John Reed <jreed@ponca.net>  
Subject: Re: Prem-Rx: The "mystery" of S/N measurements...?

Calvinf15 wrote:

> Hi John,

>

> What noise power (ENR or otherwise) does your noise generator put out? How  
> is the notch filter constructed and what are its particulars?

Noise generator is a GR 1390B. Since I adjusted the output to give + 3 dB in the notch the output wasn't constant. The notch filter is a twin-T with toroid coil center tapped. Notch frequency is 986 KHz and depth is 65-70 dB, measured by spectrum analyzer with tracking generator. The noise generator followed by the notch has a nice flat spectrum on both sides of the notch.

Also puzzling why the better "notch figure" scores were associated with

> poorer sounding receivers. Another data point that we cannot rely only on  
> specs, however they often provide a common ground from which to continue  
> investigation.

I wish I understood this better, but I can't tell you more than what I measured. I think that the characteristics of the notch may have a great deal to do with what the measurements come out to be, so the test may not be easy to duplicate, or just a measurement of a parameter that can be associated with the receiver itself.

73, John

-----  
Date: Fri, 17 Aug 2001 19:47:41 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: The "mystery" of S/N measurements...?

Careful guys, If these methods of receiver evaluation were so great, why are they not used more widely? You may be digging a big hole to fall into, but it's worth persevering since it's only by asking questions that someone comes up with the answers. 73 John Wilson

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of John Reed Sent: 17 August 2001 03:17  
Subject: Re: Prem-Rx: The "mystery" of S/N measurements...?

Calvinf15 wrote:

> Hi John,

>

> What noise power (ENR or otherwise) does your noise generator put out? How  
> is the notch filter constructed and what are its particulars?

Noise generator is a GR 1390B. Since I adjusted the output to give + 3 dB in the notch the output wasn't constant. The notch filter is a twin-T with toroid coil center tapped. Notch frequency is 986 KHz and depth is 65-70 dB, measured by spectrum analyzer with tracking generator. The noise generator followed by the notch has a nice flat spectrum on both sides of the notch.

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> poorer sounding receivers. Another data point that we cannot rely only on  
> specs, however they often provide a common ground from which to continue  
> investigation.

I wish I understood this better, but I can't tell you more than what I measured. I think that the characteristics of the notch may have a great deal to do with what the measurements come out to be, so the test may not be easy to duplicate, or just a measurement of a parameter that can be associated with the receiver itself.

73, John

-----  
Date: Sun, 19 Aug 2001 08:26:54 -0700  
From: "Paul" <radioboy@telus.net>  
Subject: Prem-Rx: For Sale RACAL 6790GM

Hi Group,

I am selling 2 RACAL RA-6790GM with LED backlights and BITE. Radios are in good shape. One has 1,3,16KHZ filters, the other has only 1KHZ. With manuals. Please email me directly to discuss price and shipping.

Thanks and 73 Paul VE7KHZ

-----  
Date: Sun, 19 Aug 2001 09:42:10 -0700  
From: "Charles Hutton" <chutton1@qwest.net>  
Subject: Prem-Rx: HRB HW1390A receiver



Premium people:

On ebay there is a most interesting receiver under item 1627787932.

This is one that I do not know at all and - as a MW DX'er for the most part - would be interesting if it has the right stuff in it.

Who knows something about this 0 - 2 MHz radio? HRB is (was) a defense contractor so one has to suspect that this is a high performance radio else why bother?

Chuck

-----  
Date: Sun, 19 Aug 2001 10:12:23 -0700  
From: "Guy Atkins" <dx@guyatkins.com>  
Subject: RE: Prem-Rx: HRB HW1390A receiver

Chuck,

It's interesting that this rig has a VIDEO Gain control... I wonder what the receiver's purpose was? I did some searching on the web but couldn't find out any more information on the HW 1390A.

Guy

> -----Original Message-----  
> From: owner-premium-rx@kahuna.sdsu.edu  
> [mailto:owner-premium-rx@kahuna.sdsu.edu]On Behalf Of Charles Hutton  
> Sent: Sunday, August 19, 2001 9:42 AM  
> To: premium-rx@kahuna.sdsu.edu  
> Subject: Prem-Rx: HRB HW1390A receiver  
>  
> Premium people:  
  
> On ebay there is a most interesting receiver under item 1627787932.  
  
> This is one that I do not know at all and - as a MW DX'er for the most  
> part - would be interesting if it has the right stuff in it.  
  
> Who knows something about this 0 - 2 MHz radio? HRB is (was) a defense  
> contractor so one has to suspect that this is a high performance  
> radio else  
> why bother?  
  
> Chuck

-----  
Date: Sun, 19 Aug 2001 17:52:20 -0700  
From: John Reed <jreed@ponca.net>  
Subject: Re: Prem-Rx: HRB HW1390A receiver

Charles Hutton wrote:

> Premium people:  
  
> On ebay there is a most interesting receiver under item 1627787932.  
  
> This is one that I do not know at all and - as a MW DX'er for the most

> part - would be interesting if it has the right stuff in it.

- > Who knows something about this 0 - 2 MHz radio? HRB is (was) a defense
- > contractor so one has to suspect that this is a high performance radio else
- > why bother?

Just a couple guesses - the bandwidths are 20K, 10K, 5K, 2.5K and 400 Hz. The wide bandwidths indicate it may have a video output or IF output feeding a panoramic display. The roofing filter must be pretty wide (greater than 20 KHz). In addition the large attenuator knob with many settings indicates poor dynamic range that must be compensated by careful attenuator adjustments, at least that's what I've noticed on other receivers. This may not be an ideal MW DX receiver. If there's only one tuning speed that tunes the 1 Hz digit, it will take a lot of dial spinning to get across the 0-2 MHz band.

73, John

-----  
Date: Wed, 22 Aug 2001 00:44:15 -0500  
From: "herschel p mccullough" <w5hpm@airmail.net>  
Subject: Prem-Rx: any info for the 590 H receiver

Does anyone have the data or book for the Harris 590H receiver..any help will be appreciated..thanx mac

-----  
Date: Thu, 23 Aug 2001 11:20:58 -0700  
From: Radio WC6W <wc6w@juno.com>  
Subject: Prem-Rx: Receiver Mailing list

Hello, Dan, W0DAN, thought I would be interested in, and gave me this address as the way to join, the premium-rx mailing list.

Thanks & Good morning, Marv WC6W

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                  premium-rx-digest Sunday, September 2 2001 Volume 01 : Number 151  
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Date: Fri, 24 Aug 2001 14:41:48 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: MACKAY MSR5050

Hi

Does anyone have a manual for one of these hopefully fine receivers that they would consider hiring to me at a fee plus all postage costs?? I am not worried where on this planet you are located, as I would rather pay postages to UK where I am, than see my money swallowed up by import tax and things, but failing that, does anyone know if MACKAY has an email address, I understand the name of the company is now

THALES MACKAY GROUP  
CAPITAL BOULEVARD  
RALEIGH NC27616.

Any help would be much appreciated, Dave MW1DUJ

Date: Fri, 24 Aug 2001 16:59:09 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New member- Gentlemen:

Paul Kluwe, W8ZO, from Ann Arbor, home of the U of M, has joined our List. Paul learned about our group from Mac Macullough, a signature often noted on posts to this List.

Paul has a Paragon R-A-10 receiver with D-A-2 detector-amplifier. Before you start to scan your memory you should understand that this device was built by Adams-Morgan Company in 1922. Paul points out that it must have been a "premium receiver" of its day, because after nearly 80 years, it still produces good armchair copy.

In addition, he also has a few other receivers such as: Rockwell Collins 95S-1A, Rockwell Collins 851S-1 & HF-8095, a Rockwell Collins HF-8054A, and a Squires-Sanders SS-1R & SS-1V.

You can contact Paul directly at: Pkluwe@aol.com

Welcome to the List Paul

Greg

-----  
Date: Sun, 26 Aug 2001 19:24:31 -0400  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>  
Subject: Prem-Rx: R-9000 "cell blocked" version available

Per the latest HRO catalog, the ICOM R-9000 now has a cell-blocked version so non-government folks like me can legally buy it. Price is currently \$10k, so I'll be saving my pennies for a while...

Regards,

Michael Tracy, KC1SX

P.S. - On a somewhat related topic, I plan on doing a detailed test of the receiver in the IC-781 (which I would be borrowing from W1AW) in the not too distant future. On the air use seemed to suggest that it has much higher dynamic range at wide spacings than 20 kHz data would indicate. Of course, I'll pass my findings on to the list.

-----  
Date: Sun, 26 Aug 2001 23:21:34 -0500  
From: "herschel p mccullough" <w5hpm@airmail.net>  
Subject: Re: Prem-Rx: R-9000 "cell blocked" version available

buy used and likely get an early version and no problemo with BLOCKING....course you miss that new LCD screen vs. the tube we have...but 3,000-4000 grand is still a lot of dough...and most definitely will await your 781 results...then I will try and match against the mil-spec 781 version ..thanx mac/mc

-----  
Date: Sun, 26 Aug 2001 21:33:06 -0700  
From: "John Miles" <jmiles@pop.net>  
Subject: Re: Prem-Rx: R-9000 "cell blocked" version available

No kidding. \$10K will get you two or three used R-9000s, even at eBay prices. I have even seen spare CRTs sold on eBay. The good ones are out there, no reason to buy a crippled new one.

- -- jm

Date: Sun, 26 Aug 2001 23:07:47 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Re: Prem-Rx: R-9000 "cell blocked" version available

I bought a spare CRT on eBay for \$300 to cover my 3 Icoms with CRTs. My company modified a 9000L for a client in Canada. I was appalled at how bad the CRT was in that expensive a radio. Considering the quality of LCDs in laptops today, there is no excuse for the LCD in the 9000L.

-----  
Date: Mon, 27 Aug 2001 08:37:35 -0400  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>  
Subject: RE: Prem-Rx: R-9000 "cell blocked" version available

John, Thanks for the tip - I somehow thought used ones wouldn't be very available. It turns out that further investigation proved me wrong anyway - ICOM's web site didn't say anything about non-gov't users, so I took another look at the HRO catalog and saw that I misinterpreted what was said (wishful thinking...).

Regards,

- --Michael Tracy, KC1SX

-----  
Date: Mon, 27 Aug 2001 09:34:41 EDT  
From: PKluwe@aol.com  
Subject: Re: Prem-Rx: R-9000 "cell blocked" version available

The CRT assembly in the R9000 and IC781 was made by Nanao Corp in Japan and was discontinued in 1994. If you look at the assembly, you will notice there are two different types of metal used in its construction. This was (allegedly) to reduce electromagnetic radiation and susceptibility. The same CRT assembly was used by a couple of medical equipment manufacturers for certain imaging equipment.

BTW: I know one of the medical manufacturers that has some unused NOS CRT tubes they are surplusng out (a lot less \$ than eBay), email me and I can put you in touch. It seems they no longer replace the CRT tubes when doing service work but replace the whole assembly with, you guessed it, an LCD assembly. I have seen them and the CRTs look a lot better, but that is progress...

73, - -Paul W8ZO

-----  
Date: Wed, 29 Aug 2001 15:33:52 -0700  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: Dead connection?

I haven't seen anything from Premium-Rx in months. Is it just quiet?

Terry O'

-----  
Date: Wed, 29 Aug 2001 14:25:12 -0700  
From: Walter Salmaniw <salmaniw@home.com>  
Subject: Re: Prem-Rx: Dead connection?

Terry, I was in Europe for a month until 21 July. When I returned there was an interesting string on measuring receiver sensitivities. Since then, there hasn't been too much activity, which, I guess, is not

too unusual, as it being the summer season. Other lists I subscribe to (R390, etc), are equally pretty moribund right now. Should pick up into the fall.....Walt.

---

Date: Wed, 29 Aug 2001 18:01:15 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: JRC NRD92 RECEIVER

Hi

Does anyone have any comments on this receiver, such as where they fit into the receiver scene these days, or can anyone point me in the direction of a manual to copy, etc, Cheers, Dave

---

Date: Wed, 29 Aug 2001 20:33:29 EDT  
From: Ka9p@aol.com  
Subject: Prem-Rx: Where to Look

I feel silly asking, but searching the web hasn't helped much. Can anyone suggest a good place to look for clean, used RX-340, WJ8711 or HF1000, or possibly checked, older WJ units? The few listed on Fair Radio's site don't look all that inviting. Any clues to Mecca greatly appreciated (obviously if anyone on the list is thinking about selling one, I'd appreciate hearing about that a well :)

Thanks, Scott

---

Date: Wed, 29 Aug 2001 19:04:07 -0700  
From: "Don Nelson" <ulformat@teleport.com>  
Subject: Re: Prem-Rx: Where to Look

Scott

Keep your eye on this newsgroup (there have been 8711A and HF1000A receivers offered from time to time. You might also look at ebay.

The models you are looking for rarely turn up at the surplus dealers -- you might keep an eye on WJ Ford and Toronto Surplus, though.

The models you request still seem to be holding their value. You might also want to contact BAE systems to get a current quote on 8711A and options (you'll likely want the roofing filter changed to 8kHz from 16 for dxing). Personally I prefer the WJ8712P as it removes all the air out of the box (you'll have to provide your own speaker, and will not have the separate RF manual gain, but otherwise identical to 8711A).

Best regards Don Nelson Oregon

---

Date: Wed, 29 Aug 2001 19:25:45 -0700  
From: "John Miles" <jmiles@pop.net>  
Subject: Re: Prem-Rx: Where to Look

> Personally I prefer the WJ8712P as it > removes all the air out of the box

Hmm. Meaning...?

- -- jm

Date: Wed, 29 Aug 2001 20:12:18 -0700  
From: Walter Salmaniw <salmaniw@home.com>  
Subject: Re: Prem-Rx: Where to Look

I've seen Don's receivers in action. What he's saying is that they are very compact! No extra space in the box, and can be mounted side by side. Neat little guys. They have their own built in fans.....Walt.

-----  
Date: Thu, 30 Aug 2001 08:36:46 -0700  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: Dead connection?

At 03:33 PM 8/29/01 -0700, Terry O'Laughlin wrote:

> I haven't seen anything from Premium-Rx in months. Is it just quiet?

Rarely a day has gone by w/o traffic on this list. In fact, it has been busier in the last two months than it has ever been before! e.g. I still have about 30 msgs from Aug and well over 100 from July in my "archives" which doesn't include the ones I dumped.

Jan

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Thu, 30 Aug 2001 11:47:15 -0700  
From: "Calvinf15" <calvinf15@earthlink.net>  
Subject: RE: Prem-Rx: Dead connection?

I haven't been getting much traffic either. Perhaps one every 2 days or so? I wonder if there is a situation with the server? I thought it was just quiet as well

adam

-----  
Date: Thu, 30 Aug 2001 16:28:41 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: RX

Someone was looking for a WJ or similar DSP radio. Of course I can't find the email now. So just in case the request was placed on this reflector, there is a 3 month old Ten-Tec 340 on eBay. Some people like it better than the HF-1000 and some think the WJ is better. It certainly does not have the agc attack distortion on SSB of the WJ. Close-in dynamic range is not as good, however, as the 1000.

-----  
Date: Fri, 31 Aug 2001 18:06:25 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: RX

Having just reviewed a latest issue RX-340 for our UK magazine, you can count me in with the "I like it" brigade. As an operator's receiver the ergonomics are way better than the W-J, and I really think the DSP sounds better. It's my No. 1 radio choice ( providing we overlook the price differential between a new RX-340 and a second user premium. As you say Rob, the agc performance is really "pop" free under all conditions. 73

-----  
Date: Fri, 31 Aug 2001 13:28:11 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: RX

As a hardware puke I must admit it is a nice piece of work. The only thing that would improve it would be a selection of IF filters to make the DSP job easier. I never heard it so can't comment on the performance. Us poor guys will own one in 20 years or so. fc

-----  
Date: Sun, 2 Sep 2001 10:15:02 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: FW: FYI Good morning all,

This is forwarded to tell our European members what is going on over here with the xDSL (Digital Subscriber Links) system which could wipe out HF communication as we know it. I have been following this from an EMC point of view for some time, and there have been several Conference papers presented over the last two years warning of the emission levels which could be caused by the system's introduction. As we can all imagine, sending data at 2.5Mbps over a network of unscreened cables is going to radiate like H\*\*L, so enjoy a quiet background whilst you can - it won't last much longer. 73 John

-----Original Message-----

In Mannheim, Germany, local power company MVV Energie AG expects to connect 3,000 customers to its Internet service by the end of this year. RWE Powerline expects to connect 2,000 more before the end of the year in its area.

MVV and RWE offer customers Internet connections at speeds up to 2.5M bps (bits per second). All a user has to do is connect a modem to a PC using a LAN or USB (Universal Serial Bus) cable and plug the modem into any electrical outlet in the home. Pricing for the service ranges from DM29.14 (US\$13.11) to DM249 per month, depending on bandwidth and in some cases how much data is transmitted. The connection speed isn't guaranteed; all users on a substation share the bandwidth, comparable to cable Internet access. The systems made by Main.net use frequencies between 1MHz and 30MHz to send data from the home to the local power substation. From there the data is moved onto a communications cable that the power company will have to install.

"There are no more technical problems. The radiation is under the allowed level, although radio amateurs aren't happy with us offering the service," said Andreas Preuss, a spokesman for RWE Powerline GmbH, which currently offers 400 customers in Essen, Germany, power line Internet access using Ascom equipment. Despite the radio operators fears, there have been no reports of radio interference, he said.

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premium-rx-digest Monday, September 10 2001 Volume 01 : Number 152  
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Date: Mon, 3 Sep 2001 16:42:42 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: buying a premium receiver from good old US of A

Hi

I have recently done a deal with a fellow premium receiver enthuseast abroad, and the receiver was simply boxed up, and sent to me, no mention of import duties, or anything of that nature, and a fine beast it is too, but I have now bought a receiver from a person in USA, ( BTW, I am in UK) and he is

wondering if I will have to pay import duty on it, which I thought was only the case if it was bought new from a shop. Can anyone in UK tell me if they have bought a set, say on EBAY or somewhere, if there is import duty payable, and if so, how is it paid, Any ideas, Dave

-----  
Date: Mon, 3 Sep 2001 17:54:40 -0700  
From: "Charles Hutton" <chutton1@qwest.net>  
Subject: RE: Prem-Rx: buying a premium receiver from good old US of A Dave:

I can't speak for the UK but having lived in Spain and Belgium with the European Community rules, everything was rated for import duty based on worth. From the standpoint of being exempt from duties, it mattered not in the least whether it was brand new or a million years old.

That only makes sense. Otherwise, everyone all over the world would buy "one month old" widgets (oddly enough in the original packaging) and import it duty free. (In Spain, things like ham equipment fell under the category of "luxury item" and the import rate was in the thirty-something percent range!)

In your shoes, I'd assume an import duty until proven otherwise. That is, unless you wish to have the exporter declare the box as "pictures of Mom" or "family Bibles" or whatever.

Chuck

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Daiungoed@aol.com Sent: Monday, September 03, 2001 1:43 PM To: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: buying a premium receiver from good old US of A

Hi

I have recently done a deal with a fellow premium receiver enthuseast abroad, and the receiver was simply boxed up, and sent to me, no mention of import duties, or anything of that nature, and a fine beast it is too, but I have now bought a receiver from a person in USA, ( BTW, I am in UK) and he is wondering if I will have to pay import duty on it, which I thought was only the case if it was bought new from a shop. Can anyone in UK tell me if they have bought a set, say on EBAY or somewhere, if there is import duty payable, and if so, how is it paid, Any ideas, Dave

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Date: Mon, 3 Sep 2001 23:07:44 -0400 (EDT)  
From: Paul Bernhardt <bern@ppdmail.nrl.navy.mil>  
Subject: Prem-Rx: Manual for Drake R7A Wanted

I am interested in purchasing an original operations or service manual for the Drake R7A.

Thanks, Paul Bernhardt

Work: P.A. Bernhardt Home: Paul Bernhardt, KF4FOR Code 6794 5704 Ridge View Dr. Naval Research Laboratory Alexandria, VA 22310 Washington, DC 20375 Tel: 202-767-0196 703-960-9656 FAX: 202-767-0631

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Date: Tue, 4 Sep 2001 01:30:48 -0700  
From: "France Antelme" <fantelme@ncal.verio.com>  
Subject: Re: Prem-Rx: buying a premium receiver from good old US of A

Dave,



The seller doesn't have to worry about import duties at his end in the US. The carrier company may or may not manage to get it through UK customs and Excise people without you having to pay duty. If duties are levied you will likely be contacted by the carrier to clear up the matter. The seller has nothing to do with the transaction.

I recently had a transaction the reverse of yours: i.e. a I bought an RA1792 From the UK. The Rx was deposited on my doorstep by the courier company and a couple of days later an invoice for \$52 arrived from them for the outstanding duty that they had paid on my behalf in order to clear the 1792 through US customs. I imagine the process is similar at you end. Duties on used item here are relatively small and all depend upon the value attached to the item by the shipper. Should be similar in the UK

- -France K6QO/ZS6GO-

- ----- Original Message -----

From: <Daiungoed@aol.com> To: <premium-rx@kahuna.sdsu.edu> Sent: Monday, September 03, 2001 1:42 PM

Subject: Prem-Rx: buying a premium receiver from good old US of A

>

Hi

> I have recently done a deal with a fellow premium receiver enthuseast > abroad, and the receiver was simply boxed up, and sent to me, no mention of > import duties, or anything of that nature, and a fine beast it is too, but I > have now bought a receiver from a person in USA, ( BTW, I am in UK) and he is > wondering if I will have to pay import duty on it, which I thought was only > the case if it was bought new from a shop. Can anyone in UK tell me if they > have bought a set, say on EBAY or somewhere, if there is import duty payable, > and if so, how is it paid, Any ideas, Dave

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Date: Tue, 4 Sep 2001 12:27:17 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: email sent to group instead of one member

Dear all, Please accept my apologies for wasting your time downloading a private email that was supposed to go to a member. Sorry,dAVE

-----  
Date: Tue, 4 Sep 2001 12:36:12 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx:

Hi All, This weekend I completed my dual filter module for the RA6830. Gary Wingerd sold me 4 sets of mechanical filters to modify 2 radios. The results were impressive. The shape factor was 1.3 for SSB while other bandwidths went out to 1.6. The modified radio with a stock radio both tuned to the same frequency quickly showed me the change was worth the time. The ultimate rejection was greater than 100 dB. The shape factor below 60 dB got a little wider but still better than a single filter. I bet you guys with 6790s could install a filter module from the 6830 and hard wire the power and control to get the same effect. I bet crystal filters would fit in the back of the radio. A MWA130 provided the gain to make up for insertion loss. Bit still passes and the noise figure is unchanged. The two filter modules were supported by one inch stand offs. The height of the filters easily fit in the space provided for crystal filters and the performance of the two types appear the same. Now to install the two 8 KHz first IF filters he sold me (stock radio is 25 and 20 KHz). fc

Date: Tue, 4 Sep 2001 21:50:23 -0700  
From: "Calvinf15" <calvinf15@earthlink.net>  
Subject: Prem-Rx: GPIB commands for WJ-8716/8718 Hi folks,

I have had no luck locating the command reference for the Watkins-Johnson 8716/8718 receiver. I really would like to automate this unit. I had hoped the command set was similar to the 8618B but alas, that seems not to be the case. I have established GPIB comm with the unit and random ASCII has not worked out so far.... Anyone???

Adam

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Date: Wed, 05 Sep 2001 16:44:13 -0700  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Re: Prem-Rx: GPIB commands for WJ-8716/8718

The MFP option manual, which also covers the 232 and 488 options, gives a fair amount of detail on the commands. I could copy the 7 pages for the 488 command structure if you want them.

**73 Terry O' WB9GVB**

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Date: Thu, 6 Sep 2001 16:00:22 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: TINY LITTLE AVANTEK ICs

Hi

I have had some ex MOD little circuit boards given to me, and on some are little (quarter inch round) avantek ICs, which are configured, or at least seem to be, as amplifiers, they have four pins, pos, ground, in and out, or so they seem on the boards. Does anyone know of any sites where there is any info. on these? I tried AVANTEKs site, but nothing like them there, any ideas, Dave

-----  
Date: Thu, 6 Sep 2001 13:16:20 -0700  
From: "John Miles" <jmiles@pop.net>  
Subject: Re: Prem-Rx: TINY LITTLE AVANTEK ICs Those small MMICs are usually impossible to identify, due to the lack of markings. They are not hard to characterize, though, if you have a spectrum analyzer and tracking generator. 99% likely to be 50 ohms in, 50 ohms out. Just pull one out and bias it on a sheet of copper-clad board through a 200-ohm resistor, and watch how the case temperature and 1-dB compression point changes with supply current.

Probably not worth a major R&D effort since you can buy a wide variety of known parts from Mini-Circuits for \$1.98 each.

- - - jm

- ----- Original Message -----

From: <Daiungoed@aol.com> To: <premium-rx@kahuna.sdsu.edu> Sent: Thursday, September 06, 2001 1:00 PM

Subject: Prem-Rx: TINY LITTLE AVANTEK ICs

>

Hi

> I have had some ex MOD little circuit boards given to me, and on some are > little (quarter inch round ) avantek ICs, which are configured , or at least > seem to be, as amplifiers, they have four pins, pos, ground, in and out, or > so they seem on the boards. Does anyone know of any sites where there is any > info. on these? I tried AVANTEKs site, but nothing like them there, any > ideas, Dave  
>

-----  
Date: Thu, 6 Sep 2001 16:23:56 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: TINY LITTLE AVANTEK ICs Hi Dave, I have some Avantek data books. Get some part numbers and I'll look them up for you. Usually they require 15 volts to operate. If there is a resistor in series with the vcc lead the low frequency cutoff is pretty low. No series resistor means they drop out below 5 to 10 MHz. Adventek was purchased by HP then on to Agilent (SP?). Many part numbers only changed prefix. fc

> -----Original Message----- >

From: Daiungoed@aol.com [SMTP:Daiungoed@aol.com] > Sent: Thursday, September 06, 2001 4:00 PM > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: TINY LITTLE AVANTEK ICs

> >

Hi

> I have had some ex MOD little circuit boards given to me, and on some > are > little (quarter inch round ) avantek ICs, which are configured , or at > least > seem to be, as amplifiers, they have four pins, pos, ground, in and out, > or > so they seem on the boards. Does anyone know of any sites where there is > any > info. on these? I tried AVANTEKs site, but nothing like them there, any > ideas, Dave

-----  
Date: Fri, 7 Sep 2001 09:25:43 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: TINY LITTLE AVANTEK ICs

Hi

The 4 pin parts can also be VCOs or directional couplers. fc

> -----Original Message----- >

From: John Miles [SMTP:jmiles@pop.net] > Sent: Thursday, September 06, 2001 4:16 PM > To: premium-rx@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: TINY LITTLE AVANTEK ICs

> > Those small MMICs are usually impossible to identify, due to the lack of > markings. They are not hard to characterize, though, if you have a > spectrum > analyzer and tracking generator. 99% likely to be 50 ohms in, 50 ohms > out. > Just pull one out and bias it on a sheet of copper-clad board through a > 200-ohm resistor, and watch how the case temperature and 1-dB compression > point changes with supply current.

> > Probably not worth a major R&D effort since you can buy a wde variety of > known parts from Mini-Circuits for \$1.98 each.

> > -- jm

> > > ----- Original Message ----- >

From: <Daiungoed@aol.com>  
> > To: <premium-rx@kahuna.sdsu.edu>  
> > Sent: Thursday, September 06, 2001 1:00 PM >  
Subject: Prem-Rx: TINY LITTLE AVANTEK ICs

> > > >

Hi

> > I have had some ex MOD little circuit boards given to me, and on > some > are  
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> > so they seem on the boards. Does anyone know of any sites where there is > any  
> > info. on these? I tried AVANTEKs site, but nothing like them there, any  
> > ideas, Dave  
> >

-----  
Date: Fri, 7 Sep 2001 19:37:05 +0200  
From: "Alberto Tosetti" <tosetti@bigfoot.com>  
Subject: Prem-Rx: Eddystone 1650/3 receiver

Hi

From a too-infrequent list contributor. I own an Eddystone 1650/3 receiver and I would like to know your opinion on this receiver. In particular I notice a poor agc performance on strong signals received, with a bad distortion in the audio. It seems me that the dynamic range is very low compared to other receivers that I use (like the Icom 775dsp and Racal 6790). If I want to receive strong signals I have to put agc off and trim the manual rf gain knob. A very skilled friend of mine told me that this lack is due not to a disalignment or a damage in my receiver, but is a failure due to the cheap components used in the first mixer circuit and to the poor design of this mixer. What do you think about this problem? Any comments most welcome,  
73 de IZ1CCF Alberto Tosetti via Pomba 24 10123 Torino Italy tosetti@bigfoot.it

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Date: Fri, 7 Sep 2001 23:26:14 -0700  
From: "refmon" <monitor@referencevideo.com>  
Subject: Prem-Rx: Premium Antenna for premium receivers...

- -----=\_NextPart\_000\_0025\_01C137F4.7CBB92A0

Hi Group,

I have just purchased a Fairchild/Electro-Metrics ALR-25 Loop Antenna = for use in the antenna banks for my Cubic HF receivers. While I have = opened it up & traced the power connector pins, I find myself in need of = more formal info-does anyone have documentation...manual/bits of = manual/pinouts/etc for this antenna? I do, of course, intend to pay for = such info whether an outright sale or an expense reimbursement.

many thanks in advance and continued thanks for info from the list in = the past

John Collins Tualatin, Oregon

Date: Sat, 8 Sep 2001 22:00:56 EDT  
From: Ka9p@aol.com  
Subject: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler?

Is there such an animal? I wonder if anyone has seen or built one, maybe From a broadband amp with HPF/LPF in front, followed by a cable TV 1:4 splitter or some such thing? Not looking for great performance, but looking to be able to monitor multiple SWBC bands for casual listening without noticeable degradation. Thanks, Scott

-----  
Date: Sat, 08 Sep 2001 23:52:04 -0400  
From: michael j brown <piggin@mindspring.com>  
Subject: Re: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler?

At 10:00 PM 9/8/2001 EDT, you wrote: >Is there such an animal? I wonder if anyone has seen or built one, maybe >from a broadband amp with HPF/LPF in front, followed by a cable TV 1:4 >splitter or some such thing? Not looking for great performance, but looking >to be able to monitor multiple SWBC bands for casual listening without >noticeable degradation. Thanks, Scott I'm certain it would be easy to build, Scott. I would use a CATV transistor amp followed by a simple resistive signal splitter. Many schematics are on the web for good dynamic range amps using CATV semiconductors....the resistive splitter would keep costs low. I doubt you could hear the noise it would introduce. Maybe someone has a multicoupler for sale cheaply as well.....

-----  
Date: Sat, 8 Sep 2001 21:20:43 -0700  
From: "Don Nelson" <ulformat@teleport.com>  
Subject: Re: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler?

One reasonably inexpensive method is to put an AAR 0.5-30 (or 1.0-30) amp in front of a Minicircuits passive multicoupler <http://www.minicircuits.com/splitter.html>. Your cost will be around \$38 for the AAR amp <http://www.advancedreceiver.com/page46.html>, and \$70-120 for the multicoupler. You may be able to locate some appropriate multicouplers on the EBAY (I just picked up one 1-175 MHz 6 ZFSC-6-1 output for \$30.00 on ebay -- brand new, still in wrapping with covers on the shiny silver coated bnc connectors... is 99.95 new from Minicircuits).

**The minicircuits (and stridsbergs) have excellent isolation between ports, which is something that resistive divider networks do not have.**

Don Nelson

Or you could use a package like Stridsberg produces <http://www.stridsberg.com/prod01.htm>

- ----- Original Message -----

From: <Ka9p@aol.com> To: <Premium-RX@kahuna.sdsu.edu> Sent: Saturday, September 08, 2001 7:00 PM

Subject: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler?

> Is there such an animal? I wonder if anyone has seen or built one, maybe > from a broadband amp with HPF/LPF in front, followed by a cable TV 1:4 > splitter or some such thing? Not looking for great performance, but looking > to be able to monitor multiple SWBC bands for casual listening without > noticeable degradation. Thanks, Scott

Date: Sun, 09 Sep 2001 22:28:08 -0700

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>

Subject: Re: Prem-Rx: Cheap, 5-30 mhz Multicoupler? I use an Anzac amp and a Mini-Circuits PSC-4-6. I built them into my Trompeter jack field. The Anzac has a very high third order intercept and was found on eBay for \$16 shipping included. The Mini-Circuits was pulled out of some scrap RF unit that I found for \$5. Works as good or better than the CU-1382B that got fried.

**Anyone every peeled open the sealed tin cans in a CU-1382? Are they potted or repairable?**

**Scrap weird RF stuff goes cheap in many places. Most hams/radio folk walk right by it if it doesn't look familiar. I found parts of a GOES system for \$10 that yielded 20 Watkins-Johnson M6A mixers, and Mini-Circuits ZFL-500 and ZFL-1000G.**

**73 Terry O' WB9GVB**

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Date: Sun, 9 Sep 2001 22:12:06 -0700

From: "Chris Anton" <cranton@mail.island.net>

Subject: Prem-Rx: ITT/Mackay MSR8000 and Skanti R6001 It was a very good weekend at the ham fest with two premium receivers (well OK one is a transceiver but I promise only to listen) added to the collection.

**The first unit is a Skanti R5001 commercial marine receiver which looks and sounds great. I've already got it mounted up into a rack and I hope to get it properly hooked into the multicoupler shortly.**

**The second unit is an ITT/Mackay MSR8000 transceiver which also appears to be in excellent condition. The unit was in service on a Canadian Coast Guard Oceanographic research vessel until it was removed two years or so ago and apparently replaced with satellite gear. Unfortunately there is no manual and no specific information about the correct pin configurations to connect up either the power or other accessory cables.**

**If anyone has any information about the MSR8000 and specifically the power cable connection I would appreciate either obtaining a copy of the relevant part of the manual or a note about proper connection. I would of course be happy to pay any copying or mailing costs. Any suggestions about where you can obtain the main power plug would also be appreciated.**

thanks Chris Anton VE7TOP

6314 McGirr Road Nanaimo, B.C. Canada V9V 1B7

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Date: Mon, 10 Sep 2001 09:57:45 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler? A motorola MWA 110, 120 or 130 is a very nice broad band amplifier that has a low frequency limit controlled by the coupling caps. I think they work up to about 300 MHz. gain about 14 db and cheap. Any amplifier with a resistor in the VCC lead will usually go down to a low frequency because there isn't an internal transformer to run out of inductance limiting low frequency performance. fc

> -----Original Message----- >

From: michael j brown [SMTP:piggin@mindspring.com] > Sent: Saturday, September 08, 2001 11:52 PM > To: premium-rx@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler?

> > At 10:00 PM 9/8/2001 EDT, you wrote:

> > Is there such an animal? I wonder if anyone has seen or built one, maybe  
> > > from a broadband amp with HPF/LPF in front, followed by a cable TV 1:4  
> > splitter or some such thing? Not looking for great performance, but > looking  
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CATV transistor > amp followed by a simple resistive signal splitter. Many schematics are on > the  
web for good dynamic range amps using CATV semiconductors....the > resistive splitter would keep  
costs low. I doubt you could hear the noise > it > would introduce. Maybe someone has a multicoupler  
for sale cheaply as > well.....

-----  
Date: Mon, 10 Sep 2001 11:29:49 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler? A splitter can be home  
brewed with a simple broad band transformer and a couple 50 ohm resistors. Look in the ARRL ham  
handbook for information on dynamic range testing. There they describe a real nice  
combiner/splitter. It has very good port to port isolation. It is also referred to as a return loss  
bridge. loss is about 6 dB. 3 of these will give the user 4 channels with 12 dB loss per channel. A lot  
cheaper than 3 mini circuits parts. The PSC is a good splitter if you can get them cheap. fc

> -----Original Message----- >

From: Don Nelson [SMTP:ulformat@teleport.com] > Sent: Sunday, September 09, 2001 12:21 AM >  
To: Ka9p@aol.com; Premium-RX@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler?

> > One reasonably inexpensive method is to put an aar 0.5-30 (or 1.0-30) amp > in front of a  
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> > The minicircuits (and stridsbergs) have excellent isolation between ports, > which is something  
that resistive divider networks do not > have.

> > Don Nelson

> > Or you could use a package like Stridsberg produces > <http://www.stridsberg.com/prod01.htm>

> > ----- Original Message ----- >

From: <Ka9p@aol.com

> > To: <Premium-RX@kahuna.sdsu.edu

> > Sent: Saturday, September 08, 2001 7:00 PM >

Subject: Prem-Rx: Cheap, Simple Homebrew 5-30 mhz Multicoupler?

> > > > Is there such an animal? I wonder if anyone has seen or built one, > maybe  
> > from a broadband amp with HPF/LPF in front, followed by a cable TV 1:4  
> > splitter or some such thing? Not looking for great performance, but > looking  
> > to be able to monitor multiple SWBC bands for casual listening without

> > noticeable degradation. Thanks, Scott

-----  
Date: Mon, 10 Sep 2001 23:21:07 -0700  
From: "Spencer Bahner" <spencer12345@email.msn.com>  
Subject: Prem-Rx: Contact Premium-RX list member

I am trying to contact Jeff Kruth (kmec@aol.com) to follow up on a premium RX issue and cannot get a response to emails. If Jeff gets this message or someone has his new email, please send an email to Spencer Bahner at spencer12345@msn.com or sbahner@ci.everett.wa.us

Many thanks.

Spencer Bahner N7UMO Seattle 425-257-8538

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**premium-rx-digest Wednesday, September 19 2001 Volume 01 : Number 153**  
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----- Date: Tue, 11 Sep 2001 23:07:08 -0400  
From: michael j brown <piggin@mindspring.com>  
Subject: Prem-Rx: my favorite buildings

When I was 15 and living in upstate new york I visited the twin towers when they were first opened to the public. They were so beautiful...they swayed in the wind enough to see when you looked from building to building on the top floor. 1/4 mile tall...they were so cool. I visited them 4 times in all...the wind was always too high for me to go out on the deck. Now I never will. Sept 11 is a date I wont forget. No American will.

-----  
Date: Wed, 12 Sep 2001 10:39:07 -0500  
From: Turkisher Dan-CSLC82 <Dan.Turkisher@motorola.com>  
Subject: Prem-Rx: COLLINS 651S1 HELP

Been tuning the receivers to various FEMA, military, and SWBC freqs since the attacks on NY and DC. And discovered that a recently acquired 651S1 does not receive between approx. 1 Mhz and 10Mhz. The symptoms:

**Start tuning @ 500 khz: good signals to ~ 1100 khz, then starts to get more noise than signals. Eventually sounds like maybe birdies or IM mix on top of signal? Pretty much no signals all the way up to 10 Mhz.**

**If set VFO to 9999.9 khz, all noise, no signals. Flip past 10000.00 khz and signals appear. Right at 10 Mhz hear a mix of WWV and choir music (can't ID source station).**

**Performance seems OK > 10.0 Mhz**

**I would assume this is a mixer or preselector failure, but don't know where to look for the source of the trouble. Any suggestions?**

Thanks and rgds

DT

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Date: Thu, 13 Sep 2001 11:56:15 +0100



From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: RA1792 processor back-up battery change Hello All

The processor back-up battery in my 1792 is showing signs of corrosion and I thought that I'd ask if there are any obvious problems involved in changing it, before I tackle the job.

I've located a suitable replacement battery and have nothing stored in any of the memories.

To make life easier I'm thinking of just cutting the pins off the old battery and soldering the new one on to them, that way I won't have to remove the board.

Can anybody see any problems?

Regards

Tracey

-----  
Date: Thu, 13 Sep 2001 12:08:27 +0100  
From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: External "S Meter" for RA1792

The one thing that I don't like about the RA1792, and the same can probably be said for the 6790, is it's lack of an analogue "S meter"

I've trawled through the archives but I haven't been able to find any reference to anyone who has added an external analogue meter to either the 1792 or 6790.

Is anybody aware of this being done as it's a little project that I'd like to tackle.

I already have an Excel spreadsheet plot of RF Input power vs. AGC line voltage measured at the AGC pin on the rear connector as a starting point.

Tracey

-----  
Date: Thu, 13 Sep 2001 12:57:17 +0100  
From: "John Midwood" <john.midwood@7layers-uk.com>  
Subject: RE: Prem-Rx: RA1792 processor back-up battery change Hi Tracey,

I've performed this operation with no problems at all. I assume the replacement battery you have has two solder pins on it? If so, you can remove the battery PCB from the motherboard by desoldering the four pins. Changing the battery is then easy. If you haven't managed to find the correct replacement battery, RS Components sell them for about 3 pounds here in the UK. Give me a shout if you need one! Whilst performing this operation, I'd recommend taking out all the EPROM's From their sockets and cleaning off any corrosion from the legs. This will save you from a lot of grief and worry in 6 months or so time.

Regards, John

- -----Original Message-----

From: Tracey Gardner [mailto:tracey.gardner@ntlworld.com] Sent: 13 September 2001 11:56 To: Premium-RX@kahuna.sdsu.edu

Subject: Prem-Rx: RA1792 processor back-up battery change

Hello All

The processor back-up battery in my 1792 is showing signs of corrosion and I thought that I'd ask if there are any obvious problems involved in changing it, before I tackle the job.

I've located a suitable replacement battery and have nothing stored in any of the memories.

To make life easier I'm thinking of just cutting the pins off the old battery and soldering the new one on to them, that way I won't have to remove the board.

Can anybody see any problems?

Regards

Tracey

-----  
Date: Thu, 13 Sep 2001 08:36:27 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: External "S Meter" for RA1792 Hi Tracy, The RA6830 brings the AGC to the rear panel connector. When the radio is wide open the AGC is supposed to be set at 10 volts and decreases as the signal level increases. I'm sure other Racals are similar. I would put a emitter follower on the signal so you don't drag it down. Then run it through a series pot. The output of the pot to one side of the s meter. The other side of the s meter would go to a second pot wiper. The outer connections of the pot can be ground and 15 volts. This would be your zero set so there is 0 volts across the s meter at no signal. The other pot would set the full scale. Values will depend on the S meter range. I also miss the analog meter and have considered the same change. Check out the ARRL solid state hand book for more ideas. This is how I did my home brew receiver. fc WA1GFZ

> -----Original Message----- >

From: Tracey Gardner [SMTP:tracey.gardner@ntlworld.com] > Sent: Thursday, September 13, 2001 7:08 AM > To: Premium-RX@kahuna.sdsu.edu >

Subject: Prem-Rx: External "S Meter" for RA1792

> > > The one thing that I don't like about the RA1792, and the > same can probably be said for the 6790, is it's lack of > an analogue "S meter"

> > I've trawled through the archives but I haven't been able > to find any reference to anyone who has added an external > analogue meter to either the 1792 or 6790.

> > Is anybody aware of this being done as it's a little project > that I'd like to tackle.

> > I already have an Excel spreadsheet plot of RF Input power > vs. AGC line voltage measured at the AGC pin on the rear > connector as a starting point.

> > Tracey >

-----  
Date: Thu, 13 Sep 2001 05:57:48 -0700

From: "Guy Atkins" <dx@guyatkins.com>

Subject: RE: Prem-Rx: External "S Meter" for RA1792 Tracey,

There was a compendium of mods for the NRD-525 published in Fine Tuning's "Proceedings" a few years ago. In this article there was a very nice external S-meter circuit designed by Craig Siegenthaler of Kiwa Electronics. I built this into a case with a 4 or 5-inch large meter and it was excellent-- I wish I still had it. The circuit includes 3-way variable dampening of the meter movement, selectable via a FET switch.

If anyone is interested in this and doesn't have access to the Proceedings edition, I could scan in and forward (email) the schematic as a GIF image attachment, along with any construction notes from the article.

73,

Guy Atkins

> -----Original Message----- >

From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu]On Behalf Of Tracey Gardner > Sent: Thursday, September 13, 2001 4:08 AM > To: Premium-RX@kahuna.sdsu.edu >

Subject: Prem-Rx: External "S Meter" for RA1792

> > > > The one thing that I don't like about the RA1792, and the > same can probably be said for the 6790, is it's lack of > an analogue "S meter"

> > I've trawled through the archives but I haven't been able > to find any reference to anyone who has added an external > analogue meter to either the 1792 or 6790.

> > Is anybody aware of this being done as it's a little project > that I'd like to tackle.

> > I already have an Excel spreadsheet plot of RF Input power > vs. AGC line voltage measured at the AGC pin on the rear > connector as a starting point.

> > Tracey

> >

-----  
Date: Thu, 13 Sep 2001 23:27:47 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Prem-Rx: RDF at World Trade Center Hi All,

I have been trying to get some RDF gear down to the World Trade Center in a coordinated fashion over the last 36 hours in order to help find survivors or at a minimum dig towards people. I have extensive experience with radiopaging networks and good experience with PCS etc.

Despite the situation, survivors in this type of rubble have been found as much as a week after incident. Many of the people affected had pagers, handsets; firefighters had HTs.

In some cases the switch can put handsets into useful test modes, pagers can be cyclically signalled or as a minimum LO radiation may be detected From either. Was just called by a friend saying that the technical side of Cingular or Cingular Paging and maybe one or two other carriers in NYC need some gear. I am in Boston and can help with directional antennas and portable wideband receivers and some back

The emergency people in NYC are of course overwhelmed. Also they understand Fire and Police, but technology is not their forte.

This list has an impressive roster; there are many connections. I ask for any help you can give in putting me together with appropriate Cingular or other carrier personnel as rapidly as possible. I do not wish to run around in the street by myself.

Please give my mobile number; 617-901-3490; to anyone you deem appropriate. Given that it is on AT&T, several attempts may be required to connect. Please feel free to call until 0200 eastern; if you get voicemail please leave a callback.

I thank you in advance for any help.

Steve Stutman KL7JT/1

-----  
Date: Fri, 14 Sep 2001 22:21:49 -0700  
From: "Spencer Bahner" <spencer12345@email.msn.com>  
Subject: Re: Prem-Rx: RDF at World Trade Center You may want to contact the local FCC office in NYC and see if they have any technical resources locally not being used on the law enforcement aspects of this disaster. At the least, you might find an FCC engineer who "gets" what is being suggested and could use their authority to get the appropriate technical personnel onto the disaster scene.

Good luck with this!

Spencer Bahner Seattle

- ----- Original Message -----

From: "Steve Stutman" <steve@xenon.clickadeal.com> To: <Premium-RX@kahuna.sdsu.edu>  
Sent: Thursday, September 13, 2001 8:27 PM  
Subject: Prem-Rx: RDF at World Trade Center

> Hi All,

> > I have been trying to get some RDF gear down to the World Trade Center > in a coordinated fashion over the last 36 hours in order to help find > survivors or at a minimum dig towards people. I have extensive experience > with radiopaging networks and good experience with PCS etc.

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> > I thank you in advance for any help.

> > Steve Stutman > KL7JT/1

> >

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Date: Sat, 15 Sep 2001 00:37:14 -0500  
From: Turkisher Dan-CSLC82 <Dan.Turkisher@motorola.com>  
Subject: Prem-Rx: RE: COLLINS 651S1 HELP Been tuning the receivers to various FEMA, military, and SWBC freqs since the attacks on NY and DC. And discovered that a recently acquired 651S1 does not receive between approx. 1 Mhz and 10Mhz. The symptoms:

Start tuning @ 500 khz: good signals to ~ 1100 khz, then starts to get more noise than signals. Eventually sounds like maybe birdies or IM mix on top of signal? Pretty much no signals all the way up to 10 Mhz.

If set VFO to 9999.9 khz, all noise, no signals. Flip past 10000.00 khz and signals appear. Right at 10 Mhz hear a mix of WWV and choir music (can't ID source station).

Performance seems OK > 10.0 Mhz

I would assume this is a mixer or preselector failure, but don't know where to look for the source of the trouble. Any suggestions?

Thanks and rgds

DT

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Date: Sat, 15 Sep 2001 09:16:48 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: RDF at World Trade Center

Hi

I called Powell's office; nothing heard. Called another Commissioner; he was defensive and hostile. Finally hooked up with NY Port Authority; they run a lot down there. Made my case; nothing further heard. Too much politics.

Thanks for comment.

73,

Steve Stutman

001.617.901.3490 mobile

On Fri, 14 Sep 2001, Spencer Bahner wrote:

> You may want to contact the local FCC office in NYC and see if they have any > technical resources locally not being used on the law enforcement aspects of > this disaster. At the least, you might find an FCC engineer who "gets" what > is being suggested and could use their authority to get the appropriate > technical personnel onto the disaster scene.

> > Good luck with this!

> > Spencer Bahner > Seattle

> > ----- Original Message ----- >

From: "Steve Stutman" <steve@xenon.clickadeal.com

> > To: <Premium-RX@kahuna.sdsu.edu

> > Sent: Thursday, September 13, 2001 8:27 PM >

Subject: Prem-Rx: RDF at World Trade Center

> > > > Hi All,

> > > > I have been trying to get some RDF gear down to the World Trade Center

> > in a coordinated fashion over the last 36 hours in order to help find

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> > voicemail please leave a callback.  
> > > > I thank you in advance for any help.  
> > > > Steve Stutman  
> > KL7JT/1  
> > > > > >

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Date: Sat, 15 Sep 2001 15:09:22 -0600

From: Rob & Terri Sherwood <rob@sherweng.com>

Subject: Prem-Rx: EK890 I have a gentleman in Japan who wants to down convert the 1.44 MHz IF of the EK890 to 455 kHz to use with an SE-3. I know nothing about this radio. Is the final IF 1.440000 MHz? Is this the final IF just before detection? Anyone know the level at the IF output jack, assuming it has an IF output jack?

**Thanks, Rob Sherwood, NC0B**  
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Date: Sun, 16 Sep 2001 17:56:46 -0700

From: "Paul" <radioboy@telus.net>

Subject: Prem-Rx: FS RACAL 6790GM I have 2 of these radios I am selling. Racal 6790GM with BITE and LED backlights. These are rack mount, ex military late 80's top of the line HF receivers. Highly regarded by many. 500KHz - 30MHz, AM, CW,USB, LSB, FM. Very sensitive and excellent audio

quality. Please email me for more info and pictures. One has 3 filters, 1, 3, 16KHz. \$775 USD, the other has one filter 1KHz, \$725 USD all plus shipping.

Thx

Paul VE7KHZ

-----  
Date: Mon, 17 Sep 2001 05:46:47 -0700

From: "Chris Anton" <cranton@mail.island.net>

Subject: Prem-Rx: MacKay Radio contacts Back in August Dave sent out the request show at the bottom of this message. Having recently been searching for information / parts on a newly acquired MSR 8000 transceiver I found the company website at:

<http://www.mackayradio.com>

This provides contact phone and email numbers and I received very friendly and helpful service from the staff there. I have a manual and some parts on order so I would suspect that the manuals for their other equipment would also be available for any member of the list interested in ITT/MacKay equipment. If there is anyone who doesn't have web access that needs any information from the site here is the basic contact information:

Mailing Address: Mackay Radio Systems, Inc. PO Box 61457 Raleigh, NC 27661-1457 USA Delivery  
Address: Mackay Radio Systems, Inc. 5249 Capital Blvd. Raleigh, NC 27616 Tel: (919) 431-8979  
Fax: (919) 431-8984

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Hi

Does anyone have a manual for one of these hopefully fine receivers that they would consider hiring to me at a fee plus all postage costs?? I am not worried where on this planet you are located, as I would rather pay postages to UK where I am, than see my money swallowed up by import tax and things, but failing that, does anyone know if MACKAY has an email address, I understand the name of the company is now THALES MACKAY GROUP CAPITAL BOULEVARD RALEIGH NC27616.

Any help would be much appreciated, Dave MW1DUJ

-----  
Date: Mon, 17 Sep 2001 21:23:51 -0700

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>

Subject: Prem-Rx: free Watkins Johnson equipment directory Fifteen years ago, I started compiling a directory of relatively common Watkins Johnson equipment. With the help of many friends and lots of borrowed and purchased literature, it has grown to 45 pages of columnar ASCII text and lists several hundred radios and accessories and their basic specifications.

I don't have a web site, but I can send to anyone who would like a copy. I have it in both WordPerfect and in straight ASCII. Just drop me a note saying which you'd like.

Best, Terry O'

-----  
Date: Mon, 17 Sep 2001 23:14:59 -0400

From: A D Shulman DDS <dentist@nornet.on.ca>

Subject: Prem-Rx: Need Power Meter advice Getting back to fundamentals, and attempting to build up a store of reasonable (for hobby purposes) standard measurement instruments, I'd like to throw out the following for the group's suggestions.

I've sort of come around to the idea that I need some means of measuring low power levels for sig gen calibration & perhaps some uhf/microwave home brew rf stage measurements. Problem is, I don't know anyone who has one to borrow, at least not nearby. Same goes for building one myself, but calibration presents the same problem. Also, I prefer to have the use of the instrument whenever.

Toronto Surplus has offered me a HP435A for what I think is an affordable price, but without the power sensor head, of which they have none in stock. They do advise that this instrument uses 8400 series sensors. Only way I know to get one of these is to purchase new, which would throw my collection budget right out the window.

Anyone know where one in workable condition could be obtained, or perhaps the meter/sensor combo at a reasonable price? Suggestions or alternatives welcome.

Arthur Shulman

-----  
Date: Mon, 17 Sep 2001 20:39:58 -0700

From: "John Miles" <jmiles@pop.net>

Subject: Re: Prem-Rx: Need Power Meter advice Ebay is the usual source for this stuff. Lots of 8400 sensors, cables, and HP43x accessories.

You might give some thought to spending a little more money for a spectrum analyzer, instead of a power meter. Unless you're doing calibration work that requires < 1 dB accuracy, a spectrum analyzer is likely to be a better choice. I hardly ever use my HP436A, because I usually want to know where the power in a signal is distributed (harmonics, discrete sidebands, spurs, noise).

- -- jm

- ----- Original Message -----

From: A D Shulman DDS <dentist@nornet.on.ca> To: <Premium-Rx@kahuna.sdsu.edu> Sent: Monday, September 17, 2001 8:14 PM

Subject: Prem-Rx: Need Power Meter advice

> Getting back to fundamentals, and attempting to build up a store of > reasonable (for hobby purposes) standard measurement instruments, I'd > like to throw out the following for the group's suggestions.

> > I've sort of come around to the idea that I need some means of measuring > low power levels for sig gen calibration & perhaps some uhf/microwave > home brew rf stage measurements. Problem is, I don't know anyone who has > one to borrow, at least not nearby. Same goes for building one myself, > but calibration presents the same problem. Also, I prefer to have the > use of the instrument whenever.

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8400 series > sensors. Only way I know to get one of these is to purchase new, which > would throw my collection budget right out the window.

> > Anyone know where one in workable condition could be obtained, or > perhaps the meter/sensor combo at a reasonable price? Suggestions or > alternatives welcome.

> > Arthur Shulman

> >

-----  
Date: Mon, 17 Sep 2001 23:41:08 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: Need Power Meter advice John Miles wrote:

> Ebay is the usual source for this stuff. Lots of 8400 sensors, cables, and > HP43x accessories.

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> > -- jm

> > ----- Original Message ----- >

From: A D Shulman DDS <dentist@nornet.on.ca>

> > To: <Premium-Rx@kahuna.sdsu.edu>

> > Sent: Monday, September 17, 2001 8:14 PM >

Subject: Prem-Rx: Need Power Meter advice

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> > alternatives welcome.

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> > > >

John, can you suggest a model that you think might meet my needs, and a price I might expect to pay for such an item? I am a bit worried about what the condition of such a delicate instrument might be considering that the other party wishes to part with it. I seem to recall a post to this forum that mentioned a particular HP sig gen that contained self-destructing unobtainable switches.

Please comment.

Arthur

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Date: Mon, 17 Sep 2001 21:15:17 -0700

From: "John Miles" <jmiles@pop.net>

Subject: Re: Prem-Rx: Need Power Meter advice Depends on the frequency range you want to cover, really. If you don't want to spend more than \$1K or so, you might look for an older HP141T outfit with an analog storage display. The HP8553 plugin for the 141T is an excellent HF spectrum analyzer through 110 MHz, and it's dirt cheap (couple hundred bucks at most). If you later decide you want to do UHF/microwave work, you can add more plugins to cover through 18 GHz.

-- jm

----- Original Message -----

From: A D Shulman DDS <dentist@nornet.on.ca> To: John Miles <jmiles@pop.net> Cc: <Premium-Rx@kahuna.sdsu.edu> Sent: Monday, September 17, 2001 8:41 PM

Subject: Re: Prem-Rx: Need Power Meter advice

> > John, can you suggest a model that you think might meet my needs, and a price I > might expect to pay for such an item? I am a bit worried about what the > condition of such a delicate instrument might be considering that the other > party wishes to part with it. I seem to recall a post to this forum that > mentioned a particular HP sig gen that contained self-destructing unobtainable > switches.

> > Please comment.

> > Arthur

> > > > >

-----

Date: Tue, 18 Sep 2001 12:29:14 -0700

From: jan@skirrow.org

Subject: Re: Prem-Rx: Need Power Meter advice Hi Arthur ...

You might consider something other than HP (heresy, I know!). I have a Boonton 41A Microwattmeter that is a nice instrument. These instruments are available for very good prices - partly becuz they aren't as popular as HP. I got mine at a mil auction for very little, and it is in like new condition.

Depending on what you want to do, an RF Microvoltmeter may also be useful. The Boonton 91H is the one I have - also purchased at a mil auction.

Both of these meters use a chopper stabilized DC amp, and it is worth verifying that the meter works correctly before purchasing. The choppers could be hard to find - everything else in the instruments is pretty common.

Boonton is not as well known as HP but did produce fine equipment. There are (I think) more recent Boonton power meters worth considering.

It's interesting (I follow the military auctions pretty closely) that a LOT of HP power meters have been sold in the past year, and most don't have the sensor heads. I did notice a lot up for auction in San Diego that had only the heads - too bad they can't get them together!

I also like the suggestion someone else made about going a bit (maybe quite a bit) higher and buying an HP spectrum analyzer. I think the model suggested would make a great addition to your bench.

Jan Skirrow

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

---

Date: Tue, 18 Sep 2001 21:28:05 -0400  
From: Geoff Greer <greer86@attglobal.net>  
Subject: Re: Prem-Rx: Need Power Meter advice Hi Arthur,

Another test equipment heretic checking in. I've been using a Racal 9303 for a while. It's microprocessor controlled and will measure power and RF volts up to about 2ghz. The meter and it's head show up on eBay quite regularly. I have the factory manual for the unit and the head if you would want a copy.

Regards, Geoff Greer

at 12:29 9/18/01 -0700, jan@skirrow.org wrote: > Hi Arthur ...

> > You might consider something other than HP (heresy, I know!). I have a > Boonton 41A Microwattmeter that is a nice instrument. These instruments are > available for very good prices - partly becuz they aren't as popular as HP. > I got mine at a mil auction for very little, and it is in like new condition.

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> > Jan Skirrow

> > >... in beautiful British Columbia, Canada

> > \*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

> > Geoff Greer Amadeus Surplus

wj8617b@earthlink.net greer86@attglobal.net

---

Date: Wed, 19 Sep 2001 17:13:36 -0400

From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Prem-Rx: MCL PSC-2-5 as VHF/UHF Antenna Combiner Following the lead suggested by the thread requesting info on a home-built multicoupler, I recently built a simple combiner using parts on hand. Cost=\$0.

3 BNC connectors, the PSC, and a small enclosure completed the project. Works great - estimated 3db loss. Now a single receiver can be fed with the outputs of two very different antenna systems.

Advantage: Excellent port-port isolation so other receivers on the system are not affected detrimentally by the cross-coupling. No active elements thus reduced IMD problems.

Example:

800 mhz directional antenna with mast-mount pre-amp >>>> { 4 port multicoupler } >>>>  
{PSC-2-5 } | Single input

v |

3 receivers | >>>> to

| 25-1000 mhz omni antenna with amplified splitter >>>> { 4 port multicoupler } >>>>  
{combiner } | VHF/UHF scanner

v

3 receivers

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End of premium-rx-digest V1 #153 \*\*\*\*\*  
Subject: premium-rx-digest V1 #154  
premium-rx-digest Wednesday, September 19 2001 Volume 01 : Number 154  
-----

----- Date: Wed, 19 Sep 2001 18:22:35 -0700 (PDT)  
From: Rodney Bunt <rodney\_bunt@yahoo.com>  
Subject: Prem-Rx: Been Laden! - --0-1944189239-1000948955=:72154 charset=us-ascii Content-  
Disposition: inline

Brilliant!

==== = Regards,

Rodney Bunt rodney\_bunt@yahoo.com M:0414-437412 F:9899-9451

-----  
End of premium-rx-digest V1 #154 \*\*\*\*\*  
Subject: premium-rx-digest V1 #155  
premium-rx-digest Tuesday, September 25 2001 Volume 01 : Number 155  
-----

----- Date: Thu, 20 Sep 2001 02:14:19 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: Need Power Meter advice John Miles wrote:

> Depends on the frequency range you want to cover, really. If you don't want > to spend more than \$1K or so, you might look for an older HP141T outfit with > an analog storage display. The HP8553 plugin for the 141T is an excellent > HF spectrum analyzer through 110 MHz, and it's dirt cheap (couple hundred > bucks at most). If you later decide you want to do UHF/microwave work, you > can add more plugins to cover through 18 GHz.

> > -- jm

> > ----- Original Message ----- >

From: A D Shulman DDS <dentist@nornet.on.ca

> > To: John Miles <jmiles@pop.net

> > Cc: <Premium-Rx@kahuna.sdsu.edu

> > Sent: Monday, September 17, 2001 8:41 PM >

Subject: Re: Prem-Rx: Need Power Meter advice

> > > > John, can you suggest a model that you think might meet my needs, and a > price I

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> > party wishes to part with it. I seem to recall a post to this forum that

> > mentioned a particular HP sig gen that contained self-destructing > unobtainable

> > switches.

> > > > Please comment.

> > > > Arthur

> > > > > > >

> >

First thanks to John, Geoff, & Jan who replied. Each had excellent advice, and I am weighing the possibilities now.

John, for the moment, I am investigating a HP141T offered by Toronto Surplus and in stock. It MIGHT be affordable, depending, as you say, on just what plugins are purchased.

Would you have time to look at this offering at [torontosurplus.com](http://torontosurplus.com) and suggest to me what would constitute an operable package? I notice that they also have in stock a variety of mixers, plugins, attenuators, & probes. There is also a tracking gen but that may push my resources too far.

My understanding is that at minimum, I need the mainframe, an RF and a IF plugin, and a probe set. Anything else? There seems to be some variations in the models of plugins offered for this unit, and I don't know anything about the variations. I need to go to 1 gig minimum, and as low as IF frequencies; higher would be better (as always).

Also, should I be concerned about calibration for the moment if the unit appears to be clean & operable?

I believe this is the same unit I once owned in the late '70's, purchased at a new cost of about C\$10k. I used it to check out VHF repeaters for spurs, and to tune duplexers for best RX performance. Of course I no longer have it, or the manual, or even an HP equipment catalog of the era. (sigh)

Thank you for your advice and your time.

Arthur

-----  
Date: Thu, 20 Sep 2001 01:11:02 -0700

From: "John Miles" <jmiles1@speakeasy.net>

Subject: Re: Prem-Rx: Need Power Meter advice

Hi

Arthur --

> Would you have time to look at this offering at [torontosurplus.com](http://torontosurplus.com) and suggest > to me what would constitute an operable package? I notice that they also have in > stock a variety of mixers, plugins, attenuators, & probes. There is also a > tracking gen but that may push my resources too far.

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You probably won't need any "probes," as such, because these are 50-ohm systems. If you need to check for parasitics or something like that without direct connection to the circuit under test, just peel back the braid from a length of RG-58 and bring the (insulated) center conductor near the circuit.

The necessary attenuators for low-power (< 1W) use are built in to the 8553/8554/8555 RF strips. For transmitter harmonic testing, you'll want a high-power inline attenuator sufficient to drop your power down to +20 dBm or less. For SSB IMD testing, a homemade probe made by slipping a piece of insulated wire underneath the braid of the coax between your transmitter and dummy load will be fine.

For HF through 1 GHz coverage, you want the HP141T/8554B/8552B combination. The 8554B is rated for 100 kHz through 1.2 GHz. You can get better performance and more precision (both in tunability and bandwidth) at < 110 MHz with the 8553B plugin. Their prices are on the high side of reasonable compared to recent ebay activity, but then I guess everything costs a little more north of the border. :) Not bad at all for dealer prices, really.

I have only used the 8552B IF strip, not the older/cheaper 8552A, but either of them should work fine. The 8552B has a 10 Hz crystal filter if I remember right, while the 8552A only goes down to 100 Hz. This isn't normally a problem. If I remember right, the 10 Hz filter is only usable with the 8553B HF plugin, so if you're going for an 8554B, there's probably no drawback in matching it with an 8552A and saving a few bucks. Hopefully someone will correct me if I'm wrong about this.

> Also, should I be concerned about calibration for the moment if the unit appears > to be clean & operable?

Not really... as long as the built-in calibrator signal looks good in both frequency and amplitude, these things are pretty bulletproof. Amplitude accuracy, once calibrated via the front panel, should be flat within a couple dB throughout the range. Zoom down onto the calibrator signal at a narrow (< 50 kHz/div) span and make sure the 8554B's frequency stabilizer function works OK. It should have the effect of eliminating almost all drift while still permitting fine tuning. Test all the RF attenuator settings to make sure none of the resistive elements have been blown.

The 141T uses an analog storage CRT that may not be in the best shape, but this is something you can easily check before you buy. Blooming at high intensities is par for the course, but you should be able to store a dim trace for several minutes with good readability. Watch for signs of "burn-in" where someone may have left the intensity turned up too high, or left a stored image onscreen at high intensity for too long. One nice thing about the 141T is that spare CRTs are available all over the place for \$100 or less.

The fan in the mainframe will be fairly loud, but there should be no bearing noise, and it should be only moderately clogged with dust. :)

> > I believe this is the same unit I once owned in the late '70's, purchased at a > new cost of about C\$10k. I used it to check out VHF repeaters for spurs, and to > tune duplexers for best RX performance. Of course I no longer have it, or the > manual, or even an HP equipment catalog of the era. (sigh)

Probably so -- the 141Ts were very popular. Manuals are not hard to find, check the usual suspects (Ed Matsuda, Manuals Plus, and The Manual Merchant). Be sure to tell them the serial # so they can get as close as possible to your production date.

Good luck! -- john KE5FX

> > Thank you for your advice and your time.

> > Arthur

> >

-----  
Date: Thu, 20 Sep 2001 13:27:35 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Need Power Meter advice Toronto is over priced for HP141 you can do better

> -----Original Message----- >

From: John Miles [SMTP:jmiles1@speakeasy.net] > Sent: Thursday, September 20, 2001 4:11 AM >

Cc: Premium-Rx@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: Need Power Meter advice

> >

Hi

Arthur --

> > > Would you have time to look at this offering at torontosurplus.com and > suggest

> > to me what would constitute an operable package? I notice that they also > have in

> > stock a variety of mixers, plugins, attenuators, & probes. There is also > a

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> > plugin, and a probe set. Anything else? There seems to be some > variations > in the

> > models of plugings offered for this unit, and I don't know anything > about > the

> > variations. I need to go to 1 gig minimum, and as low as IF frequencies; > higher

> > would be better (as always).

> > > > You probably won't need any "probes," as such, because these are 50-ohm > systems. If you need to check for parasitics or something like that > without > direct connection to the circuit under test, just peel back the braid from > a > length of RG-58 and bring the (insulated) center conductor near the > circuit.

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> > Good luck! -- john KE5FX

> > > > Thank you for your advice and your time.

> > > > Arthur

> > > >

-----  
Date: Thu, 20 Sep 2001 13:44:49 -0600

From: Rob & Terri Sherwood <rob@sherweng.com>

Subject: Re: Prem-Rx: Need Power Meter advice I did not catch what the potential buyer was wanting to spend. I owned three complete 141T systems in the 80s and 90s, including both tracking generators, and the 18 GHz 8555A plugin. It is easy to blow the input mixer in the 8555A, and it is not repairable. The 8554B is less prone to damage, but has more problems with the LO stabilization circuit. The 8553A and 8443 tracking generator are a wonderful combination. I sold all of them a year or two ago on eBay, and felt lucky to get a few thousand dollars out of all three of them. The first one cost me over \$10K in the early 80s.



Maintenance began to be a problem on equipment this old. So I sold all that stuff off and bought an HP 3585A to do audio to 40 MHz. This is the most phenomenal analyzer I have ever used. It includes a tracking generator, too. It is so good at audio I sold off my Tek 5L4n which I had owned for 25 years.

To do 10 kHz to 1.5 GHz I bought a HP 8568B. This analyzer puts the 141T to shame in ease of use, frequency setting, stability, you name it. There is no good tracking generator, however, compared to the 8553 / 8443 system. So I lost a lot between 40 MHz where the 3585A leaves off, and 110 MHz. For sweeping wide filters, cavities, etc., the 8444 tracking generator does work with the 8568B.

Once you have replaced the 30+ year old analyzers with the newer 15 year old product, there is no going back. The calibration stability of both the 3585A and the 8568B are unbelievable. I actually own two of each. Outputs from any of my synthesizers measure within a small fraction of a dB when plugging the same signal into any of the four analyzers. By the way, the agreement between my two 3586C level meters is also staggering, considering neither have been calibrated for years.

Finally, a FET probe is really nice. I use both the Tek 6201 and 6202 series. Some of the 6202s have their own supply, while the A model needs an external 1101 (I think) supply or a 7000 mainframe to power it. All the 6201s need power. When I am testing a high power linear for IMD, harmonics, spurious, etc. I use a Bird or similar thru line watt meter with a pickup slug. This gives the proper level to feed into the analyzers. All this stuff can be purchased on eBay for reasonable prices. With the failing economy, likely more and more test equipment will be on the auction block.

If in any way a buyer can afford the 15 year old test equipment instead of the 30 year old stuff, this is the way to go. But then the 141T system may be the only thing affordable for a ham operator who does not have a business need for the equipment, and a budget in the \$2000 to \$4000 range. Be sure to get the storage mainframe, or you will be unable to use narrow spans and narrow resolutions.

73, Rob, NCOB.

"Carcia, Frank A. HS" wrote:

> Toronto is over priced for HP141 you can do better

> > > -----Original Message-----

> >

From: John Miles [SMTP:jmiles1@speakeasy.net]

> > Sent: Thursday, September 20, 2001 4:11 AM

> > Cc: Premium-Rx@kahuna.sdsu.edu

> >

Subject: Re: Prem-Rx: Need Power Meter advice

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Hi

Arthur --

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> > > > > > Thank you for your advice and your time.  
> > > > > Arthur  
> > > > >

-----  
Date: Thu, 20 Sep 2001 22:53:59 -0600

From: Rob & Terri Sherwood <rob@sherweng.com>

Subject: Re: Prem-Rx: Need Power Meter advice Reply: True, but I did not consider any ham would be able to do that. While they were still in support, you could pay a rather large sum to HP, and they would send you an exchange unit, (blue stripe program) and then repair yours with the rebonding. I think the plugin had to be totally recalibrated for frequency response.

Kerry Banke wrote:

> This last statement is not entirely true. The 8555A mixers have on board > spare chip diodes which can be rewired with the proper wire bonding > equipment. There is a Ham in Oregon that repaired one for one of our San > Diego Microwave Group members. > - Kerry N6IZW -

> > At 01:44 PM 9/20/01 -0600, you wrote:

> > I did not catch what the potential buyer was wanting to spend. I owned three  
> > complete 141T systems in the 80s and 90s, including both tracking generators,  
> > and the 18 GHz 8555A plugin. It is easy to blow the input mixer in the 8555A,  
> > and it is not repairable.

-----  
Date: Thu, 20 Sep 2001 22:07:26 -0700

From: "John Miles" <jmiles@pop.net>

Subject: Re: Prem-Rx: Need Power Meter advice Well, dead 8555As go for a couple hundred bucks or less on ebay, so the liability is limited. Very interesting tidbit about the spare diodes, though; I'd never heard that one before!

A lot of the 'accidents' with these mixers could be avoided, along with a lot of faulty IMD readings, if people would just get out of the habit of leaving their front-end attenuators set to 0 dB.

- - - jm

- ----- Original Message -----

From: "Rob & Terri Sherwood" <rob@sherweng.com> To: "Kerry Banke" <kbanke@qualcomm.com>; "Premium, RX" <Premium-RX@kahuna.sdsu.edu> Sent: Thursday, September 20, 2001 9:53 PM

Subject: Re: Prem-Rx: Need Power Meter advice

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> >

-----  
Date: Fri, 21 Sep 2001 01:15:19 -0400

From: A D Shulman DDS <dentist@nornet.on.ca>

Subject: Re: Prem-Rx: Need Power Meter advice "Carcia, Frank A. HS" wrote:

> Toronto is over priced for HP141 you can do better >

Thank you John.

Bill's reply tonight might be right.

Waiting for his reply to see if unit is suitable & still available. Thanks again - - saved me a trip to Toronto Fri afternoon.

Arthur.

-----  
Date: Fri, 21 Sep 2001 17:33:03 -0600

From: Rob & Terri Sherwood <rob@sherweng.com>

Subject: Prem-Rx: [Fwd: ]

- -----109BDFF1A48471AD35B7FF89 charset= us-ascii

If anyone is interested in this, please contact Doc directly.

- -----109BDFF1A48471AD35B7FF89 Content-Type: message/rfc822

**Content-Disposition: inline**

Return-Path: <eprocopovici@juno.com> Received: from m26.boston.juno.com (m26.boston.juno.com [64.136.24.89]) by supernova dimensional.com (8.11.4/8.11.4) with ESMTP id f8LMYOH02057 for <robert@sherwood-engineering.com>; Fri, 21 Sep 2001 16:34:02 -0600 (MDT) Received: from cookie.juno.com by cookie.juno.com for <"qWcgl YEHPOEHUEJOK93j5Wg6vpWcoHCIX0sR86I OHNc4uRQP7GWYUw=="> Received: (from eprocopovici@juno.com) by m26.boston.juno.com (queuemail) id GFV5EQ64; Fri, 21 Sep 2001 18:32:11 EDT To: robert@sherwood-engineering.com Date: Fri, 21 Sep 2001 16:32:12 -0600 Message-ID: <20010921.163213.-169047.2.eprocopovici@juno.com> X-Mailer: Juno 4.0.5 MIME-Version: 1.0 Content-Type: text/plain

**X-Juno-Line-Breaks: 1-3 X-Juno-Att: 0 X-Juno-RefParts: 0**

**From: EUDOXIE O PROCOPOVICI <eprocopovici@juno.com> X-Mozilla-Status2: 00000000**

**Looking for a person that would be interested in a collection of communication receivers like Rohde&Schwarz EK07, Racal RA17 etc., about 93 of them. You can e-mail me or call (303) 934 7017 Doc**

- -----109BDFF1A48471AD35B7FF89--

Date: Sun, 23 Sep 2001 17:35:23 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: [Fwd: [Fwd: Prem-Rx: Large attachment]]

- -----A831EE7E3869530B8A35F8A2 charset= us-ascii

**Here is the answer from an Agilent employee about the HP App Notes. They are gone.**

- -----A831EE7E3869530B8A35F8A2 Content-Type: message/rfc822

**Content-Disposition: inline**

Return-Path: <gbus@qwest.net> Received: from dnvrpop3.dnvr.uswest.net (dnvrpop3.dnvr.uswest.net [206.196.128.5]) by supernova dimensional.com (8.11.4/8.11.4) with SMTP id f8NNGj813725 for <rob@sherweng.com>; Sun, 23 Sep 2001 17:16:45 -0600 (MDT) Received: (qmail 9697 invoked by uid 0); 23 Sep 2001 23:16:45 -0000 Received: from dnvrds1gw14poola138.dnvr.uswest.net (HELO adsl) (63.228.84.138) by dnvrpop3.dnvr.uswest.net with SMTP; 23 Sep 2001 23:16:44 -0000 Date: Sun, 23 Sep 2001 17:17:10 -0600 Message-ID: <000f01c14485\$df4402c0\$0300000a@adsl.qwest.net> From: "gbus" <gbus@qwest.net> To: "Rob & Terri Sherwood" <rob@sherweng.com> Subject: Re: [Fwd: Prem-Rx: Large attachment] MIME-Version: 1.0

**X-Priority: 3 X-MSMail-Priority: Normal X-Mailer: Microsoft Outlook Express 4.72.3110.1 X-MimeOLE: Produced By Microsoft MimeOLE V4.72.3110.3 X-Mozilla-Status2: 00000000**

**...Sad but true.**

- -----Original Message-----

From: Rob & Terri Sherwood <rob@sherweng.com> To: Burnett, Greg <gbus@qwest.net> Date: Sunday, September 23, 2001 1:39 PM  
Subject: [Fwd: Prem-Rx: Large attachment]

**I assume the answer is most HP app notes are history.**

- -----A831EE7E3869530B8A35F8A2--

Date: Mon, 24 Sep 2001 02:21:08 EDT  
From: CLeyson@aol.com  
Subject: Prem-Rx: Re:HP App Notes They're still there

Try <http://www.tm.agilent.com> Then select Products & Services / Test & Measurement / library From the drop down menu. Best Regards Chris Leyson

-----  
Date: Mon, 24 Sep 2001 08:45:29 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: HP App Notes What I meant, plus what my Agilent guru meant, was the app notes are out of print since they won't ship HP app notes from Agilent. But if something is on the web, that may stay accessible. It does not appear that Agilent will update out of print app notes.

-----  
Date: Mon, 24 Sep 2001 10:59:23 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: HP App Notes

Hi  
Wait until Carly discontinues instruments that are low volume. New "Agilent" catalog will be a single sheet listing ATE for PCs. New sector President will be a brand Manager from Proctor & Gamble with experience in portion-controlled convenience pet-food with affinity marketing.

N.B. The above represents the occasional thoughts of the writer and should not be construed as representing the list manager nor his assignees. All trademarks are property of the companies which own them.

Steve Stutman

On Mon, 24 Sep 2001, Rob & Terri Sherwood wrote:

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-----  
Date: Mon, 24 Sep 2001 09:34:34 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Re: Prem-Rx: HP App Notes It will be interesting to see how much faster equipment goes out of support. Even before Carly and the spin off, some test equipment went out of support due to unavailability of parts, even though there were no newer products to replace them. Cases in point: 3585B (or even the A model). There is no analyzer this good available today in the audio to HF range. The 3335 synthesizer with its laser-trimmed attenuator is irreplaceable for level flatness. It is out of support and cannot be repaired if the attenuator goes out.

Sales at Tektronix and Agilent are drastically down in the year 2000, and there is no light at the end of the tunnel.

Steve Stutman wrote:

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-----  
Date: Mon, 24 Sep 2001 13:56:11 EDT

From: CLeyson@aol.com

Subject: Re: Prem-Rx: HP App Notes Please accept my apologies guys. For an moment I thought ALL HP app notes had gone for ever. If I had any original out of print app notes I'd get them scanned and posted on the web somewhere.

Rob, I too have an HP3585, probably the best HF analyser ever built !! Some spares are still available through Agilent. If any of the logic boards ever failed I would be prepared to clone them with modern silicon, might even be cheaper than the cost of the spares in small numbers. I mean to keep this one going for as long as I can.

Agilent don't seem to care these days. I recently talked to an Agilent rep enquiring about 3585 spares, he couldn't give a damn and more or less said TOUGH ! I've even heard a rumor that they could pull out of the analyser market all together. Just as well - judging by the performance of the 8591E (the one I occasionally use at work). The dynamic range is poor (no good for IP3 measurements) and the phase noise is just lousy. Not worthy of the HP name.

Best Regards Chris Leyson

-----  
Date: Mon, 24 Sep 2001 18:32:33 +0100

From: "Adam MacDonald" <calvinf15@earthlink.net>

Subject: RE: Prem-Rx: HP App Notes Hi Folks,

Let's take this bull by the horns and help each other out! I have at least a dozen HP app notes that are most likely unavailable on the web, since I had to have them mailed to me by HP before the split. Is there anyone out there with enough web space to host a bunch of app notes? Perhaps a free harddrive service such as Freedrive or Xdrive is the answer here.

I can scan these beasts into PDF format, but even without the Adobe writer, one can scan these as tiff or similar. Assuming that the workload wouldn't be extremely high, I would volunteer to scan these into PDF. I propose we build a small library for the use of people like us. For example, the classic APP Note 95 "S-parameters" is a valuable piece of work, but probably only obtainable on ebay for \$20 if you are lucky enough to come across it.

I imagine there is probably a copyright hurdle, but with a permission slip, I bet we could work it for us hobbyists since these notes are out of print. It really would be a shame to lose all of that good work



forever. Similar efforts might be made for selected HP Journal articles, such as those which have passed across the newsgroup.

No, HP is dead, but we can try to capture the technical efforts of those who developed a once-great test equipment company.

Any support for such an undertaking?

Adam N1GX

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of CLeyson@aol.com Sent: Monday, September 24, 2001 6:56 PM To: Premium-RX@kahuna.sdsu.edu

Subject: Re: Prem-Rx: HP App Notes

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Best Regards Chris Leyson

-----  
Date: Tue, 25 Sep 2001 11:01:34 +0200

From: "John Wilson" <johnwilson@freezone.co.uk>

Subject: Prem-Rx: HP Good morning everyone, I came back to my computer after a spell in hospital to find many interesting postings, the most recent being about the once great H-P company. My little tale to add to Chris's episode concerns an HP-8648B generator, which is still current catalogue. The unit died on me and I found that the switched mode PSU had failed. This is a single board crap-card made in Hong Kong by Artesyn Technologies, so there should have been no problem in fixing it except for the fact that Agilent refused point blank to let me have a schematic. I could either return the whole generator to them for repair and re-cal (which it didn't need) at a fixed price of over \$1000 or they would graciously sell me a new PSU card for \$600. This is for an open board supply for which I expect a price of around \$60. Needless to say I'll fix the da\*\*ed thing myself, but what shocked me was the couldn't care less attitude of the Agilent so-called support system. Not only were they not interested, I just couldn't find anyone who understood a word I was saying.

However, it's good to be back, having had a close call with my Maker on the operating table. I went in for emergency surgery on my appendix but apparently had a heart attack on the slab due to an allergic reaction to the anaesthetic. You never know what's around the corner!! 73 John

----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Tue, 25 Sep 2001 06:15:34 -0400

From: Geoff Greer <greer86@attglobal.net>

Subject: RE: Prem-Rx: HP App Notes

Hi

I can't help on the host space, but I do have a pretty complete set of app notes that apply to the 141T Spec An that HP sent me a while back. I could scan them into PDF's. They even had sent me a copy of the appropriate indexes so I could pick out what I needed. What are the details about the "permission slip"?

I agree it is a shame that HP is no more in name or spirit.

Geoff Greer

At 18:32 9/24/01 + 0100, Adam MacDonald wrote: > Hi Folks,

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From: owner-premium-rx@engineering.sdsu.edu > [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of > CLeyson@aol.com > Sent: Monday, September 24, 2001 6:56 PM > To: Premium-RX@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: HP App Notes

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> > Best Regards > Chris Leyson

> > Geoff Greer Amadeus Surplus  
wj8617b@earthlink.net greer86@attglobal.net

-----  
Date: Tue, 25 Sep 2001 06:21:54 -0400  
From: "Ed Tanton" <n4xy@arrl.net>  
Subject: RE: Prem-Rx: HP Ah yes... The good ol' Harvard School of Business 'bottom-line-is-everything' thinking has affected (infected) even HP. Sad.

Glad you're better John.

73 Ed Tanton N4XY <n4xy@arrl.net>

Ed Tanton N4XY 189 Pioneer Trail Marietta, GA 30068-3466

website: <http://www.n4xy.com>

LM: ARRL QCWA AMSAT & INDEXA; SEDXC NCDXA GACW QRP-ARCI OK-QRP QRP-L #758  
K2 (FT) #00057

///snip Not only were they not interested, I just couldn't find anyone who understood a word I was saying.

However, it's good to be back, having had a close call with my Maker on the operating table. I went in for emergency surgery on my appendix but apparently had a heart attack on the slab due to an allergic reaction to the anaesthetic. You never know what's around the corner!! 73 John

- ----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

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End of premium-rx-digest V1 #155 \*\*\*\*\*  
Subject: premium-rx-digest V1 #156  
premium-rx-digest Tuesday, October 2 2001 Volume 01 : Number 156  
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----- Date: Tue, 25 Sep 2001 08:00:57 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: HP App Notes The real shame is the whole country is getting that way.

> -----Original Message----- >

From: Geoff Greer [SMTP:greer86@attglobal.net] > Sent: Tuesday, September 25, 2001 6:16 AM >  
To: Adam MacDonald; Premium-RX@kahuna.sdsu.edu >

Subject: RE: Prem-Rx: HP App Notes

> >

Hi

> > I can't help on the host space, but I do have a pretty complete set of > app notes that apply to the 141T Spec An that HP sent me a while back. I > could scan them into PDF's. They even had sent me a copy of the > appropriate indexes so I could pick out what I needed. What are the > details about the "permission slip"?

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> > > > Any support for such an undertaking?

> > > > Adam N1GX

> > > > -----Original Message-----

> >

From: owner-premium-rx@engineering.sdsu.edu

> > [mailto:owner-premium-rx@engineering.sdsu.edu]On Behalf Of

> > CLeyson@aol.com

> > Sent: Monday, September 24, 2001 6:56 PM

> > To: Premium-RX@kahuna.sdsu.edu

> >

Subject: Re: Prem-Rx: HP App Notes

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> > HP name.  
> > > > Best Regards  
> > Chris Leyson  
> > > > Geoff Greer > Amadeus Surplus  
> > wj8617b@earthlink.net > greer86@attglobal.net

-----  
Date: Tue, 25 Sep 2001 15:52:29 EDT  
From: CLeyson@aol.com  
Subject: Prem-Rx: HP John Good to see you up and about again !

Its a great shame that Agilent don't give a damn. I wouldn't buy any of their new equipment. I don't think they know how to build spectrum analysers or sig-gens anymore, performance specs have not improved since the 80's. (Network analysers could be an exception though). The same applies to other manufacturers and perhaps even to HF receivers ! Profit before performance.

Have a set of 3585 service manuals if anyone ever needs any help.

Best Regards Chris Leyson

-----  
Date: Tue, 25 Sep 2001 17:11:39 EDT  
From: Llqpt@aol.com  
Subject: Re: Prem-Rx: HP In a message dated 09/25/01 5:07:16 AM, johnwilson@freezone.co.uk writes:

<< However, it's good to be back, having had a close call with my Maker on the operating table. I went in for emergency surgery on my appendix but apparently had a heart attack on the slab due to an allergic reaction to the anaesthetic. You never know what's around the corner!!

73

John >>

Welcome back John,

I'm up and running once again myself. Glad you are still with us.

Les Locklear

-----  
Date: Tue, 25 Sep 2001 14:46:45 +0100  
From: "Adam MacDonald" <calvinf15@earthlink.net>  
Subject: FW: Prem-Rx: HP App Notes Folks,

Thanks for all of the replys. I spoke with a minion at Agilent who gave me his most expedient answer: "NO". At least, "probably not", and "my supervisor is not available...blah, blah, blah...."

Anyway, my best solution for the moment is to develop an Web-based spreadsheet (which will fit easily on my website) containing the names of HP APP, Tech and Journal Notes, together with a brief abstract of the note (usually printed verbatim on the front of the note) and the email address of the person who owns the hardcopy of the note. This way, copies may be legally exchanged for non-professional hobbieist usage and no copyright issues will arise.

When someone sees a technical article they need/desire, they can contact the owner directly, who should be able to digitize the note into a suitable email-friendly format (PDF or similar).

Please email me directly (calvinf15@earthlink.net) with the above info so I can begin compiling "the list", which should evolve to a sizeable document. Before contributing however, please check the Agilent website: <http://www.tm.agilent.com/classes/MasterServlet?view=library&language=eng&locale=US> in order to ensure that it is not already available for download, as they did a fairly good job retaining some classic notes.

Again: Title, Document Type (App Note, Tech Note, HP Journal Article), Abstract, Email Address (or website link)

I will post an article in a few weeks when the list takes shape and is ready for viewing.

Thanks

Adam N1GX

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Adam MacDonald Sent: Monday, September 24, 2001 6:33 PM  
To: Premium-RX@kahuna.sdsu.edu

Subject: RE: Prem-Rx: HP App Notes

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Best Regards Chris Leyson

-----  
Date: Wed, 26 Sep 2001 10:16:55 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: Health, wealth and happiness My sincere thanks to everyone who welcomed me back to the group. My family still can't understand why the first thing I did when coming home was to post the Premium site, but you and I know what happiness can be gained from the electronic company of like-minded friends. As Arnie sad "I 'll be back!" John

----- John Wilson Stone Hill Kings Nympton Umberleigh Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Thu, 27 Sep 2001 22:16:54 -0600  
From: Gerald Caouette <ve6nap@telusplanet.net>  
Subject: RE: Prem-Rx: HP App Notes How much host Space are we talking about ??

Regards Gerald Caouette 9116 - 79 street Edmonton, Alberta Canada T6C 2R4

ve6nap@ve6nap.com

<http://www.ve6nap.com>

- -----Original Message-----

From: Geoff Greer [SMTP:greer86@attglobal.net] Sent: Tuesday, September 25, 2001 4:16 AM To: Adam MacDonald; Premium-RX@kahuna.sdsu.edu

Subject: RE: Prem-Rx: HP App Notes

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> > Geoff Greer Amadeus Surplus

wj8617b@earthlink.net greer86@attglobal.net

-----  
Date: Fri, 28 Sep 2001 20:57:12 +0900

From: akio fujikawa <jg3gog@jarl.com>

Subject: Prem-Rx: RACAL 6790 LCD Hello! I am looking for Function side LCD for RA6790. Please e-mail for it's information.

Best regards 73 akio<JAPAN>

-----  
Date: Fri, 28 Sep 2001 09:37:53 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: RACAL 6790 LCD Check with Gary Wingerd, I will cc him so you have his email address. fc

> -----Original Message----- >

From: akio fujikawa [SMTP:jg3gog@jarl.com] > Sent: Friday, September 28, 2001 7:57 AM > To: Premium-RX@kahuna.sdsu.edu >

Subject: Prem-Rx: RACAL 6790 LCD

> > Hello! > I am looking for Function side LCD for RA6790. > Please e-mail for it's information.

> > Best regards > 73 > akio<JAPAN

> >

-----  
Date: Fri, 28 Sep 2001 23:36:56 +0900

From: akio fujikawa <fujikawa@nike.eonet.ne.jp>

Subject: Re: Prem-Rx: RACAL 6790 LCD Hello!

I am akio fujikawa. Sorry. I mistake setting address of messenger.

akio fujikawa@nike.eonet.ne.jp jg3gog@jarl.com

"Carcia, Frank A. HS" wrote:

> Check with Gary Wingerd, I will cc him so you have his > email address. fc

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> > akio< JAPAN  
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---

Date: Fri, 28 Sep 2001 16:52:04 EDT  
From: Ka9p@aol.com  
Subject: Prem-Rx: HF-1000A Muting Has anyone experienced any difficulty muting a HF1000A? I get MUT on the display as should be, but slight audio feedthrough and strong-s-meter indication, and a very slow AGC recovery (despite AGC setting). It only happens when the transmitter is operating approximately w/i the range of the roofing filter - if I punch in a memory 15 kcs away and flip to that during transmit and back again at receive, no problem.....perhaps grounding the input on transmit would help ? Any ideas appreciated. Thanks, Scott

---

Date: Sun, 30 Sep 2001 17:26:27 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Prem-Rx: UElectronicO's To all:

I have stumbled across a source of the following packaged circuits, but have so far been unable to identify same. Can anyone help?

Anzac SW-526 Olektron P4-VPS-100-70 Olektron FP-HJ-302U Olektron FP-CDB-185

Arthur

---

Date: Sun, 30 Sep 2001 15:48:05 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member - Mark Donaldson Our newest member is Mark Donaldson-

Mark was first licensed in 1975 as WA1QHQ. He is presently employed at ThirdRail Wireless Systems as electrical engineer specializing in RF and microwave circuit and systems design. ThirdRail has a contract with the federal government to build a wireless broadband data network that will be used for federal, state and local government agencies for day to day use as well as FEMA and the Office of Emergency Management for emergency services.

For our members in Australia, it should be noted that Mark is often traveling on business to your part of the world on business. Perhaps a meeting can be arranged?

His hobby interests range from collecting and restoring boat anchors to microwave radio links. This has developed into an interest in constructing and modifying high performance short-wave receivers. Presently he has two RA6830s and a Watkins Johnson 8718A as well as large collection of boatanchor receivers.

The QTH of our newest member is Groton, MA Give him a welcome at: [mark.donaldson@third-rail.net](mailto:mark.donaldson@third-rail.net)

Greg

---

Date: Mon, 01 Oct 2001 20:33:31 +0900  
From: akio fujikawa <jg3gog@jarl.com>  
Subject: Re: Prem-Rx: RACAL 6790 LCD To all Thank you for your good information. I will get LCD.

If you will want Japanese parts, please e-mail.

Best regards 73 akio jg3gog@jarl.com

p.s Mr.Greg changed my e-mail address. Thank you so much!!!

akio fujikawa wrote:

> Hello! > I am looking for Function side LCD for RA6790. > Please e-mail for it's information.

> > Best regards > 73 > akio<JAPAN>

-----  
Date: Tue, 02 Oct 2001 14:02:38 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: HF-1000A Muting Ka9p@aol.com wrote:

> Has anyone experienced any difficulty muting a HF1000A? I get MUT on the > display as should be, but slight audio feedthrough and strong-s-meter > indication, and a very slow AGC recovery (despite AGC setting). It only > happens when the transmitter is operating approximately w/i the range of the > roofing filter - if I punch in a memory 15 kcs away and flip to that during > transmit and back again at receive, no problem.....perhaps grounding > the input on transmit would help ? Any ideas appreciated. Thanks, Scott

Hi Scott,

I think other list members might be able to offer suggestions that might be more helpful than mine, but here goes:

- 1) I think the HF-1000 is performing admirably under the circumstances, but since this is a hostile RF environment, it can't cope with the signal strength it is encountering in the passband of the roofing filter. I agree that this is the problem, as you suggested.
- 2) Grounding the input is an easy test to try, and I suggest doing it first. I don't know what you have for T/R switching, but a coax relay is an easy fix.
- 3) As part of a better analysis & fix, how about examining the RF environment & reducing the field strength near the receiver. Grounding to a GOOD RF ground is essential here. Sometimes it might be necessary to tune the ground line if it is too long.
- 4) Also look to the quality of the soldered connection on coax - these often, if poor, can make the coax braid radiate excessively.

Just a few suggestions.

Arthur

-----  
End of premium-rx-digest V1 #156 \*\*\*\*\*  
Subject: premium-rx-digest V1 #157  
premium-rx-digest Tuesday, October 9 2001 Volume 01 : Number 157  
-----

----- Date: Tue, 2 Oct 2001 14:29:32 -0400  
From: "Peter Gottlieb" <nerd@bellatlantic.net>  
Subject: Prem-Rx: Harris RF-590A AGC annoying, problem? Hi All;

On my 590A the AGC seems very annoying, like it keeps jumping around randomly. This is particularly noticeable on faster settings where several times per second (at random) it will jump to higher gain so you will hear a burst of static which will decay off, then again and again. It doesn't do this all the time, and sometimes it seems worse than other times.

If this is normal, fine, but if there is something fixable I will definitely like to get into it and fix the problem.

Any ideas?

Peter

-----  
Date: Tue, 2 Oct 2001 15:21:58 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: HF-1000A Muting

Hi

Shield your speaker leads and put a small cap across the speaker. I had the same problem with my TR7 into the linear. fc

> -----Original Message----- >

From: A D Shulman DDS [SMTP:dentist@nornet.on.ca] > Sent: Tuesday, October 02, 2001 2:03 PM  
> To: Ka9p@aol.com > Cc: Premium-RX@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: HF-1000A Muting

> > Ka9p@aol.com wrote:

> > > Has anyone experienced any difficulty muting a HF1000A? I get MUT on > the

> > display as should be, but slight audio feedthrough and strong-s-meter

> > indication, and a very slow AGC recovery (despite AGC setting). It > only

> > happens when the transmitter is operating approximately w/i the range of > the

> > roofing filter - if I punch in a memory 15 kcs away and flip to that > during

> > transmit and back again at receive, no problem.....perhaps > grounding

> > the input on transmit would help ? Any ideas appreciated. Thanks, > Scott

> > Hi Scott,

> > I think other list members might be able to offer suggestions that might > be > more helpful than mine, but here goes:

> > 1) I think the HF-1000 is performing admirably under the circumstances, > but > since this is a hostile RF environment, it can't cope with the signal > strength > it is encountering in the passband of the roofing filter. I agree that > this is > the problem, as you suggested.

> > 2) Grounding the input is an easy test to try, and I suggest doing it > first. > I don't know what you have for T/R switching, but a coax relay is an easy > fix.

> > 3) As part of a better analysis & fix, how about examining the RF > environment > & reducing the field strength near the receiver. Grounding to a GOOD RF > ground > is essential here. Sometimes it might be necessary to tune the ground line > if > it is too long.

> > 4) Also look to the quality of the soldered connection on coax - these > often, if poor, can make the coax braid radiate excessively.

> > Just a few suggestions.

> > Arthur >

-----  
Date: Tue, 2 Oct 2001 20:33:17 -0500  
From: "Joe Watson" <wwatson@mmcable.com>  
Subject: Prem-Rx: Looking for a Racal RA6790/GM manual for a friend

- -----= \_NextPart\_000\_0021\_01C14B81.7784F0B0

I have a friend who needs a Racal RA6790/GM manual. Does anyone know a source?

Thanks.

Joe Watson

- -----= \_NextPart\_000\_0021\_01C14B81.7784F0B0

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML><HEAD>
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content= 3D"MSHTML 5.00.3103.1000" name= 3DGENERATOR> <STYLE></STYLE>
</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2>I have a friend
who needs a Racal = RA6790/GM manual.</FONT></DIV> <DIV><FONT face= 3DArial
size= 3D2> Does anyone know a source?</FONT></DIV> <DIV>&nbsp;</DIV>
<DIV><FONT face= 3DArial size= 3D2> Thanks.</FONT></DIV> <DIV>&nbsp;</DIV>
<DIV><FONT face= 3DArial size= 3D2> Joe Watson</FONT></DIV> <DIV>&nbsp;</DIV>
<DIV>&nbsp;</DIV></BODY></HTML>
```

- -----= \_NextPart\_000\_0021\_01C14B81.7784F0B0--

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Date: Tue, 02 Oct 2001 20:19:38 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: Hy-Gain Does anyone have mechanical specs for the Hy-Gain 155BAS 15 meter 5 element beam? Boom length, weight and square feet of wind load? MFJs / Hy-Gain web site doesn't say anything, and since this beam has been around for 30 years, maybe a Prem RX member has one. I have a 402BA and a 204BA, and both have served me well for almost 30 years. If anyone knows of one for sale, I am looking for one.

-----  
Date: Wed, 03 Oct 2001 00:33:57 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: [Fwd: Re: Prem-Rx: HF-1000A Muting] - ----- Original Message -----

Subject: Re: Prem-Rx: HF-1000A MutingDate: Tue, 02 Oct 2001 23:57:30 -0400

From: A D Shulman DDS <dentist@nornet.on.ca> To: Ka9p@aol.com References:  
<151.1ecba5d.28ebca96@aol.com>

**Ka9p@aol.com wrote:**

> I hadn't considered > disconnecting or grounding the other antennas, and now that you mention it,  
> my open wire fed 250 ft zepp may be dragging some RF back into the shack thru > the tuner. My  
RF grounding does, lets say. leave a bit to be desired. Love > that radio tho. Hope you got squared  
away on your test equipment ok. > Regards, Scott

Ok Scott,

Just remembered a few other things for you.

Frank's suggestion to bypass the speaker leads made me look at the back panel of my HF-1000. My audio out connector has a hooded RF bypass plugin sent to me n/c by WJ when I ordered upgrade eproms for it. Does yours have the same on the DB25?

They also sent me a new front-panel phone jack with a bypass cap already soldered & ready to install! So Frank was right on the money with that one!

Open-wire feeders can put far too much RF into the RX environment. I remember years ago running an end-fed long wire on 40 m with a Johnson Matchbox. SWR into the Matchbox was 1:1 on the coax, but I could get RF lip burns from leaning into the mike! This was one that disappeared when I transferred to a coax centre-fed dipole, so the RF must have been from the feedline. At 100 watts out, it was easy to draw a screwdriver arc abt 1/4" long from the Matchbox terminal.

On another occasion, same type of antenna @ 25 watts, a case of fluorescent bulbs 2' from the feedline would light up as I keyed the transmitter!

Still working on the test equipment - should have more to say in a few days.

Arthur

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Date: Thu, 4 Oct 2001 20:21:02 -0600  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: Prem-Rx: Racal DSP Rx There is a very interesting Racal DSP receiver on \*bay at the moment.

The RA3794 is the dual/remote control version with PBT, IF notch, DSP IF filtering. If you have access to the control software or a control unit, it might be worthwhile.

Shaun

- ----- Shaun Merrigan smerriga@compusmart.ab.ca

-----

Date: Fri, 5 Oct 2001 15:14:26 -0500  
From: "George Wagner" <geewagons@worldnet.att.net>  
Subject: Prem-Rx: Need info on Racal RA3794 Hi All,

I find myself as the (soon to be) owner of very, very premium Racal RA3794, having just won the recent eBay auction for it. This is a current production, dual HF receiver with DSP processing. The 3794 variant has no front panel controls and is typically controlled over a serial ASCII link. Other models in the series include the 3791, 3792, and 3793. Once I get it fired up I'll be happy to share my observations with the group.

Here's the tough part: Does anyone know where I might obtain a manual describing the serial interface and command protocol? The Racal web site says that the protocol is common with the RA3701/3702 receiver's protocol.

Is there a way to order the manual or application software directly from Racal in the UK?

Thanks!

George Wagner

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Date: Mon, 8 Oct 2001 19:21:50 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: Cheap NORLIN HF Multicoupler?

Hi

A lot of very interesting postings have been put here recently, and not so recently about the pros and cons of the various HF multicouplers, I am at the moment using one made by RAVEN RESEARCH, and very good it is, too, but I am in the process of getting one made by NORLIN, I dont know the type number yet, but it is an 8 way unit, and I could'nt resist it at the price. Has anyone got any experience of these NORLIN units to share?? I have a NORLIN VHF/UHF receiver, and it is STREETS ahead of anything I have ever used on these frequencies, so lets hope the multicoupler is that good, any replies gratefully received, Dave

-----  
Date: Tue, 9 Oct 2001 02:04:20 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Prem-Rx: Interesting HF freqs Hi All,

**Can some of the SWLs on the list suggest interesting HF freqs with respect to current events in Afghanistan and related locales?**

73,

Steve

-----  
Date: Tue, 9 Oct 2001 09:09:36 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Cheap NORLIN HF Multicoupler? Hi All, 3 cores and 3 resistors build a 1 to 4 splitter. I built one that has 6 dB of loss. An mmic could be used to get back positive if necessary. 4 more of each gets you to 8 to 1 splitter with more loss though. I'm using mine below 10 MHz. so don't need the gain. fc

> -----Original Message----- >

> From: Daiungoed@aol.com [SMTP:Daiungoed@aol.com] > Sent: Monday, October 08, 2001 7:22 PM  
> To: premium-rx@kahuna.sdsu.edu >  
> Subject: Prem-Rx: Cheap NORLIN HF Multicoupler?

> >

Hi

> A lot of very interesting postings have been put here recently, and > not > so recently about the pros and cons of the various HF multicouplers, I am > at > the moment using one made by RAVEN RESEARCH, and very good it is, too, but > I > am in the process of getting one made by NORLIN, I dont know the type > number > yet, but it is an 8 way unit, and I could'nt resist it at the price. Has > anyone got any experience of these NORLIN units to share?? I have a NORLIN

> > VHF/UHF receiver, and it is STREETS ahead of anything I have ever used on > these frequencies, so lets hope the multicoupler is that good, any replies

> > gratefully received, Dave

-----  
Date: Tue, 09 Oct 2001 13:34:20 -0700  
From: jan@skirrow.org  
Subject: RE: Prem-Rx: Cheap NORLIN HF Multicoupler? At 09:09 AM 10/9/01 -0400, Carcia, Frank A. HS wrote: > Hi All, > 3 cores and 3 resistors build a 1 to 4 splitter. I built one > that has 6 dB of loss. An mmic could be used to > get back positive if necessary. 4 more of each gets you to 8 to >1 splitter with more loss though. I'm using mine below 10 > MHz. so don't need the gain. fc

Maybe it isn't a problem with high end radios, but one of the reasons active MCs were normally used was to isolate one radio from the others. If you look at the circuits typically used, you'll see that the two design issues were correcting for gain loss and achieving individual rcvr isolation. As some (older-at least) radios did radiate thru the antenna terminal to some degree, this was an issue.

With a normal splitter this isolation isn't there - as sometimes you may see with a typical 2:1 splitter feeding a TV set and an FM radio. Eg my Bose FM radio manual says don't use a splitter, or the radio will interfere with the TV.

Of course if you only have one radio turned on at a time, no problemo! But that kinda removes all the fun of having an MC.

Jan Skirrow

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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End of premium-rx-digest V1 #157 \*\*\*\*\*  
Subject: premium-rx-digest V1 #158  
premium-rx-digest Sunday, October 14 2001 Volume 01 : Number 158  
-----

----- Date: Tue, 9 Oct 2001 16:07:10 -0700  
From: "Greg Bailey" <[gbailey@mail.sdsu.edu](mailto:gbailey@mail.sdsu.edu)>  
Subject: Prem-Rx: New Member: Brian Comer (DR333) Gentlemen:

Our newest member is Brian Comer, a fellow Californian, living in San Marcos which is 25 miles north of San Diego. Brian "transferred" to the US from the United Kingdom in 1967. Our newest member came across our List while looking for some information on using the IEEE-488 interface to drive his Racal 6830 JD.

His call while living in the UK was G3ZVC which may be recognized for its association with the design of the SSB transceiver using Plessey IC's back in the 1970s'. In addition, Brian was the hardware designer of the DR-333. Many of our members have, or have owned, a McKay-Dymek DR-333 ( <http://www.dxing.com/sample53.pdf> ) and will recognize the receiver which is listed in Fred's bible on receivers. He states he does "not have a complete DR333 although I do have a special DF version of this receiver used for military purposes".

I must also add that Brian has a second family consisting of three adopted children aged 1, 2 and 4 years and one foster child 6 months.

You can contact Brian at : Brian D. Comer [[bcomer@lsil.com](mailto:bcomer@lsil.com)], or on the air as KF6C.

Welcome to the group Brian-

Greg

-----  
Date: Tue, 9 Oct 2001 22:46:20 -0700  
From: "Charles Hutton" <[chutton1@qwest.net](mailto:chutton1@qwest.net)>  
Subject: RE: Prem-Rx: Cheap NORLIN HF Multicoupler? Frank:

Do you know the design for 3 way, 5 way, 6 way, etc. splitters where the loss is the theoretical loss for such a splitting? (4.8 dB for 3 way, etc.)

Chuck

- -----Original Message-----



From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Carcia, Frank A. HS Sent: Tuesday, October 09, 2001 6:10 AM To: 'Daiungoed@aol.com'; premium-rx@kahuna.sdsu.edu  
Subject: RE: Prem-Rx: Cheap NORLIN HF Multicoupler?

Hi All, 3 cores and 3 resistors build a 1 to 4 splitter. I built one that has 6 dB of loss. An mmic could be used to get back positive if necessary. 4 more of each gets you to 8 to 1 splitter with more loss though. I'm using mine below 10 mHz. so don't need the gain. fc

> -----Original Message----- >

From: Daiungoed@aol.com [SMTP:Daiungoed@aol.com] > Sent: Monday, October 08, 2001 7:22 PM  
> To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Cheap NORLIN HF Multicoupler?

> >

Hi

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> > VHF/UHF receiver, and it is STREETS ahead of anything I have ever used on > these frequencies, so lets hope the multicoupler is that good, any replies

> > gratefully received, Dave

-----  
Date: Tue, 09 Oct 2001 22:53:48 -0700  
From: Walter Salmaniw <salmaniw@home.com>  
Subject: Re: Prem-Rx: Interesting HF freqs - =====\_3944031==\_ .ALT ;  
format=flowed

At 02:04 AM 10/9/2001 -0400, Steve Stutman wrote: > Hi All,

> > Can some of the SWLs on the list suggest interesting HF freqs with respect > to current events in Afghanistan and related locales?

Steve, Voice of Sharia is a real DX target. I've heard snippets of them here in the Pacific northwest in the past, but in Hawaii 18 months ago, I listened to them daily in English, and later in Russian at 1530 and 1650 UTC. They may very well have been bombed out of existence by now, however. 11175 is always a favourite ute frequency of mine.....Walt. - - -

===== \_3944031 = = \_ .ALT

<html> <font size= 3> At 02:04 AM 10/9/2001 -0400, Steve Stutman wrote:<br> <blockquote type= cite class= cite cite> Hi All,<br><br> Can some of the SWLs on the list suggest interesting HF freqs with respect<br> to current events in Afghanistan and related locales?<br></blockquote><br><br> </font> Steve, Voice of Sharia is a real DX target.&nbsp;I've heard snippets of them here in the Pacific northwest in the past, but in Hawaii 18 months ago, I listened to them daily in English, and later in Russian at 1530 and 1650 UTC.&nbsp;They may very well have been bombed out of existence by now, however.&nbsp;11175 is always a favourite ute frequency of mine.....Walt.</html>

- ===== \_3944031 = = \_ .ALT--

-----  
Date: Wed, 10 Oct 2001 11:04:09 -0700  
From: "Brian D. Comer" <bcomer@lsil.com>  
Subject: Prem-Rx: Dymec DR333 Hi All

Thank you for accepting me in the group.

DR333 Receiver Notes.

The receiver was manufactured by Stoner Communications who hold the Dymec name or at least did at the time. Business wise it was not a great success and only about 100 were produced if my memory serves me. I designed the receiver hardware and my son Alan did the software. Comer Communications Inc. gave the design to Stoner under a royalty's agreement. The design of the DR333 used some circuits and software from other CCI products. CCI. Produced a number of special purpose computer controlled Transceivers, under subcontract, for government research. As a result of the DR333 CCI was given a contact for the development and production of a limited number of eight channel HF receivers for use in direction finding systems. The DR333 had been totally forgotten over the years, except there are three of the boxes with no innards in the junk pile somewhere. I am sure that the circuit diagrams for this receiver and the original control programs are archived but finding them might be a project.

The following are some communications between Alan and I.

Cool. You might want to look for the old source code for the device. I

Don't even remember the device fully. Didn't it have a 68HC11 in it? Keep me informed Alan

> Yes It was the 68HC11. I don't know if I have the source code. I can't > remember the > time when the radio was built. But I suspect the code was done on the HP 150.

> > Alan Comer wrote:

I don't remember much of that times either. However, I do remember that

Some of the dymek DR333 was done at the plant in Escondido. This was with the 386 Dell machines that we paid \$10,000 for. I know that I was using

the HP 150 for some programming back with the version before. I don't know when we switched over, but it would be either the Dymek or the next radio. Alan

Regards Brian Comer

-----  
Date: Wed, 10 Oct 2001 20:41:59 -0700  
From: Nick Hall-Patch <nhp@ieee.org>  
Subject: Re: Prem-Rx: Dymek DR333 Hello Brian and the group,

Is it the code for the HC11 you are looking for, or for the DOS control software that Stoner provided with the radio? Stoner kindly sent me the latter code a few years back, if that is what you are looking for.

I used the code to help develop my own control program to use the DR333 as a medium frequency propagation monitoring tool; results are described in the July-August 2001 QEX...

Will be out of town for the next 3 weeks starting Oct 11, so apologies in advance for any untoward silences on my part.

best wishes,

Nick

VE7DXR

At 11:04 AM 10/10/01 -0700, you wrote: > The following are some communications between Alan and I.

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> Alan

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> > time when the radio was built.

\*\*\*\*\*

Nick Hall-Patch Victoria, B.C. Canada

e-mail: Nick\_Hall-Patch@telus.net (mail forwarded via nhp@ieee.org)

\*\*\*\*\*

-----  
Date: Thu, 11 Oct 2001 08:25:32 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: RA6790/GM

Hi

I have just acquired a 6790/gm, its a non-worker, which I knew before purchase, I have never seen anything like the condition of it, it loks absolutely brand new, the idea was to try to get it working, swap the front panel for mine, which has a rather blurred display, and sell it on, but now I cant bear to do it, so it looks like I will keep both, the reason for this posting is to ask if anyone has come across a set of I F filters like the ones in it, I thought it was odd, there is an aluminium cover over them, but it was about twice as tall as it need be, but under it, the filters are also twice as tall, and they are all very narrow, 400Hz, 500Hz, 1KHz, 1.2KHz, anyone seen this setup before? Also, the frequency display shows all 0s, and there is nothing except 00 in the other display in the place where the filter bandwidth is displayed, BI TE does not work on pressing LOCK and AM, any suggestions before I dive into the manual? Dave

-----  
Date: Thu, 11 Oct 2001 12:10:59 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: RE: [Racal] RA6790/GM

Hi

Contact Gary Wingerd who services Racals. He can provide various filters. He also has the short ones that are mechanical. The tall ones are crystal filters. Performance about the same for both types. His email address is the cC. fc

> -----Original Message----- >

From: Daiungoed@aol.com [SMTP:Daiungoed@aol.com] > Sent: Thursday, October 11, 2001 8:26 AM > To: premium-rx@kahuna.sdsu.edu > Cc: racal@qth.net >  
Subject: [Racal] RA6790/GM

> >

Hi

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> >

> > To leave Racal , send <mailto:majordomo@qth.net> > with the BODY of the message containing:

> > unsubscribe racal

-----  
Date: Thu, 11 Oct 2001 12:15:30 -0400

From: "Carcia, Frank A. HS" <[francis.carcia@hs.utc.com](mailto:francis.carcia@hs.utc.com)>

Subject: RE: Prem-Rx: New Member: Brian Comer (DR333) Hi Brian, Contact Colin Trass at [www.visualradios.com](http://www.visualradios.com) for remote software. I have a number of RA6830 configurations and software versions if you need any information. I'm also hot rodding one unit. fc, WA1GFZ

> -----Original Message----- >

From: Greg Bailey [SMTP:[gbailey@mail.sdsu.edu](mailto:gbailey@mail.sdsu.edu)] > Sent: Tuesday, October 09, 2001 7:07 PM > To: Premium >

Subject: Prem-Rx: New Member: Brian Comer (DR333)

> > Gentlemen:

> > Our newest member is Brian Comer, a fellow Californian, living in San > Marcos > which is 25 miles north of San Diego. Brian "transferred" to the US from > the United Kingdom in 1967. Our newest member came across our List while > looking for some information on using the IEEE-488 interface to drive his > Racal 6830 JD.

> > His call while living in the UK was G3ZVC which may be recognized for its > association with the design of the SSB transceiver using Plessey IC's back > in the 1970s'. In addition, Brian was the hardware designer of the > DR-333. > Many of our members have, or have owned, a McKay-Dymek DR-333 (> <http://www.dxing.com/sample53.pdf>) and will recognize the receiver which > is listed in Fred's bible on receivers. He states he does "not have a > complete DR333 although I do have a special DF version of this receiver > used > for military purposes".

> > I must also add that Brian has a second family consisting of three adopted > children aged 1, 2 and 4 years and one foster child 6 months.

> > You can contact Brian at : Brian D. Comer [[bcomer@lsil.com](mailto:bcomer@lsil.com)], or on the > air > as KF6C.

> > Welcome to the group Brian-

> > Greg

-----  
Date: Thu, 11 Oct 2001 09:48:01 -0700

From: "Brian D. Comer" <[bcomer@lsil.com](mailto:bcomer@lsil.com)>

Subject: Re: Prem-Rx: Dymek DR333 Hi Nick and the group We were just looking at what information we may still have on the receiver. I suspect that we can find the control code easier than the HC11

code. Anyway if anyone wants the control code I will direct them to you. That will save me looking though all my archives.

Regards Brian Comer

Nick Hall-Patch wrote:

> Hello Brian and the group,

> > Is it the code for the HC11 you are looking for, or for the DOS control > software that Stoner provided with the radio? Stoner kindly sent me the > latter code a few years back, if that is what you are looking for.

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> > > time when the radio was built. >

\*\*\*\*\* >

Nick Hall-Patch > Victoria, B.C. > Canada

> > e-mail: Nick\_Hall-Patch@telus.net > (mail forwarded via nhp@ieee.org)

> >

\*\*\*\*\*

-----  
Date: Thu, 11 Oct 2001 10:18:13 -0700

From: "Brian D. Comer" <bcomer@lsil.com>

Subject: Re: Prem-Rx: New Member: Brian Comer (DR333) Hi Frank

I do not have the data on the IEE488 control codes which is all I need from a software point of view. I will be using Labveiw to control the receiver. I also need a service manual. If you have this information I would be more than willing to pay for some copies. The receiver I have has only the 3.4 KHz filter in it. I would like to find a source of the correct filters for the others. I also need to know how to add control for the other filters. Is this done by a hardware or software modification, if software, is it under remote control code? I have some of the new colins mechanical filters I could use. They will need a pcb to adjust the pin out and maybe impedance matching. The biggest problem is holding these tiny filters (relatively) in place without permanent mod's to the receiver

"Carcia, Frank A. HS" wrote:

> Hi Brian, > Contact Colin Trass at [www.visualradios.com](http://www.visualradios.com) for remote > software. I have a number of RA6830 configurations > and software versions if you need any information. > I'm also hot rodding one unit. fc, WA1GFZ

> > > -----Original Message-----

> >

From: Greg Bailey [SMTP:[gbailey@mail.sdsu.edu](mailto:gbailey@mail.sdsu.edu)]

> > Sent: Tuesday, October 09, 2001 7:07 PM

> > To: Premium

> >

Subject: Prem-Rx: New Member: Brian Comer (DR333)

> > > > Gentlemen:

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> > used

> > for military purposes".

> > > > I must also add that Brian has a second family consisting of three adopted

> > children aged 1, 2 and 4 years and one foster child 6 months.

> > > > You can contact Brian at : Brian D. Comer [[bcomer@lsil.com](mailto:bcomer@lsil.com)], or on the

> > air

> > as KF6C.

> > > > Welcome to the group Brian-

> > > > Greg

-----

Date: Fri, 12 Oct 2001 22:43:44 +0100

From: "j.tansley" <j.tansley@btinternet.com>

Subject: Fw: Prem-Rx: RA6790/GM Hi Dave, I have one of these, you need to do the following to get anything > passable from it

>> 1) The sets are new, as such the battery for the processor PCB is not > charges. The set must be switched on, so LED's are on, and left for at least > ten minutes (probably much longer for a full charge) before the set will > respond sensibly to any command. Then switch off.

>> 2) To get any sense from the set, the remaining filters need moving to the > following positions FL1 = 1KHz : FL2 = 500Hz : FL3 = 400Hz : FL4 = vacant : > FL5 = Vacant FL6 (the AM filter) = insert 0.047 across the two outer small > terminal sockets : FL7 =1.2 KHz. This all gives usable, but not good AM, SSB > on filter buttons 1 thru 5. Next proceed to stage 3, if these are > changed after stage 3 go through stage 3 again.

>> 3) Press the entry key and hold while you switch on. This will initiate a installation self > test, apparantly, (This only happens when the battery is not charged). At the end of its > cycle, a tone will sound and BFO offset will show, press. at local/remote,AM > and then enter (in that order).

No manual. so only my 0.75 hr experience of mine.

> > We both need AM and 2.8 to 3.4 KHz filters, please let me know if you find a > source in the UK. regards

> > Joanna Tansley

> > > > ----- Original Message ----- >

From: <Daiungoed@aol.com

> > To: <premium-rx@kahuna.sdsu.edu

> > Cc: <racal@qth.net

> > Sent: 11 October 2001 13:25 >

Subject: Prem-Rx: RA6790/GM

> > > >

Hi

> > I have just acquired a 6790/gm, its a non-worker, which I knew before

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> > was about twice as tall as it need be, but under it, the filters are also

> > twice as tall, and they are all very narrow, 400Hz, 500Hz, 1KHz, 1.2KHz,

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> > there is nothing except 00 in the other display in the place where the > filter

> > bandwidth is displayed, BITE does not work on pressing LOCK and AM, any

> > suggestions before I dive into the manual? Dave

> >

-----  
Date: Fri, 12 Oct 2001 22:49:21 +0100  
From: "j.tansley" <j.tansley@btinternet.com>  
Subject: Fw: Prem-Rx: RA6790/GM Hi Dave, I have one of these, you need to do the following to get anything > passable from it

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Date: Fri, 12 Oct 2001 22:50:42 +0100

From: "j.tansley" <j.tansley@btinternet.com>

Subject: Fw: Prem-Rx: RA6790/GM Hi Dave, I have one of these, you need to do the following to get anything > passable from it

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> >

-----  
Date: Thu, 11 Oct 2001 17:04:29 -0500  
From: Dallas Lankford <dallas@bayou.com>  
Subject: Prem-Rx: Re: [Racal] RA6790/GM (Display & uP) Hi -

Try swapping the microprocessor (uP) board out of your good one. If that brings the new one alive, swap the filters from your good one and enjoy a new 6790. You can try fixing the uP board from the new one later.

If you want to replace your blurry display with a new one (made recently, I understand, by the same manufacturer who made the originals, not NOS), contact Allen Bond of Maxi-Gain Systems: info@mgs4u.com. If I remember correctly, he sells these new ones for about \$100 each. The LCDs are plug-in, and so can be replaced by dropping the front panel, removing the encoder disc, shaft and knob, and (I think) unmounting the PC board behind the front panel. I bought one of these for a "fragmented and dim" display in one of my 6790 a year or two ago, and the replacement has performed flawlessly. I liked it so much that I bought an additional new display of each kind as spares. I have seen enough people remark about a dim or otherwise bad 6790 display over the last 10 years that I believe it is a common problem.

If your new uP board is "bad" (replacing it with the uP board from your old 6790 brought the new 6790 alive), and you are good with a soldering iron and up to removing 40 pin ICs, e-mail me directly and I'll make some suggestions.

Daiungoed@aol.com wrote:

>

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AM, any > suggestions before I dive into the manual? Dave

> >

> > To leave Racal , send mailto:majordomo@qth.net > with the BODY of the message containing:

> > unsubscribe racal

Date: Fri, 12 Oct 2001 11:13:14 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member- Steve Burney Gentlemen:

Checking in from San Jose, Steve Burney is our 158th member. He found out about the List while doing a search for information on his WJ-8716.

Steve works under the call of KD6QPQ and has been interested in radios since a teenager. In addition to his WJ, he has a Racal 6790/GM which is need of some TLC.

Presently he is using his EE background in the area of designing medical devices.

Steve can be reached at: Steve Burney [burneysm@earthlink.net]

Welcome to the group- there are plenty 6790 members who I am sure will assist - - -

Greg

-----  
Date: Sun, 14 Oct 2001 11:00:09 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: Dymek DR333 Just a note on some recollections of the DR333:

Sometime in 1989 or 1990 I was in Universal Radio in Columbus OH, inquiring about their M1200 Decoder card, and I was given a demonstration of the DR333 feeding HF RTTY from Norfolk VA to the card.

The radio was intriguing to me because of the concept of a small package that could be remotely controlled (albeit from DOS). I already owned a pair of Dymek DR33's, fully stuffed with Collins filters, and was well satisfied with the performance of that platform. Unfortunately, when I had finally decided to purchase the DR333, it had already been sold, and I learned that it was no longer in production.

I always wondered just how difficult it might be to apply the same principles to my own receivers, substituting remote control for the front panel frequency switches, but it was an idea that always ended up on the back burner. (If anyone has some simplified suggestions to do this, I would still proceed!)

A few years later, I acquired an HF-1000 to round out my HF collection.

The Dymek receivers were exceptional for their time; sadly they were not well received in the marketplace and seem very scarce today.

Arthur

-----  
Date: Sun, 14 Oct 2001 11:40:16 -0400  
From: Fred Osterman <osterman@dxing.com>  
Subject: Re: Prem-Rx: Dymek DR333 Arthur is correct. The DR333 was an exceptional receiver for its time.

We sold a modest number and interest was starting to build when we received an unexpected letter from Wayne Cook the Director of Marketing for Stoner Communications. The letter, dated October 3, 1994 stated:

"Stoner Communications regrets to inform all our Dymek Dealers that the DR333 must be discontinued....and no more are available. The reason for the demise of the DR333 is due to the company Plessey (of England) discontinuing the manufacture of certain specialized I.C.'s required for us to continue production. The manufacturer did not inform us of this (allowing us to purchase quantities sufficient to continue manufacturing .....)."

Thus the DR333 came to an abrupt end. (The next black box receiver to enter the scene would be the short-lived ComFocus SoftWave).

If you are fortunate enough to come upon a McKay Dymek DR333, I do have software, manuals, spec. sheets, etc.

- Fred Osterman, Universal Radio-

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> > Arthur

- -- Fred Osterman E-Mail: osterman@DXing.com Universal Radio Research Web site:  
www.DXing.com Universal Radio Inc. Web site: www.universal-radio.com 6830 Americana Pkwy.  
Phone: 614 866-4267 Reynoldsburg, OH 43068 Fax Line: 614 866-2339

-----  
Date: Sun, 14 Oct 2001 18:41:21 +0100

From: "Tracey Gardner" <tracey.gardner@ntlworld.com>

Subject: Re: Prem-Rx: Dymek DR333 If anyone fancies picking up a Dymek DR333, Hoka have one for sale.

<http://www.hoka.net/surplus.html>

Tracey

-----  
Date: Sun, 14 Oct 2001 12:01:13 -0700

From: Walter Salmaniw <salmaniw@home.com>

Subject: Re: Prem-Rx: Dymek DR333 - =====\_63467341==\_.ALT ; format=flowed

At 06:41 PM 10/14/2001 + 0100, Tracey Gardner wrote:

> If anyone fancies picking up a Dymek DR333, Hoka have one > for sale.

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Tracey, I think that I saw this same ad some 9 to 12 months ago. Seems to be a bit pricey, if I recall the NLG exchange rate.....Walt. - - - = = = = = \_63467341 = = \_ .ALT

<html> <font size= 3> At 06:41 PM 10/14/2001 + 0100, Tracey Gardner wrote:<br><br>  
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exchange rate.....Walt.</font></html>

- =====\_63467341==\_ALT--

-----  
Date: Sun, 14 Oct 2001 18:27:25 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: RE: Prem-Rx: Dymek DR333

- =====\_NextPart\_000\_0004\_01C154DD.DF554EA0

The Hoka price is NLG 1500. The dollar:guilder exchange rate is just under 2.5, so the USD price  
would be just north of \$600. They're asking some pretty handsome prices on Plessey gear, too, if I  
understand anything about usual Plessey prices.

- --howard n7exn -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-  
rx@engineering.sdsu.edu]On Behalf Of Walter Salmaniw Sent: Sunday, October 14, 2001 3:01 PM To:  
Tracey Gardner Cc: Premium-Rx@kahuna.sdsu.edu  
Subject: Re: Prem-Rx: Dymek DR333

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face= 3DArial size= 3D2><SPAN = class= 3D410551822-14102001> The Hoka price is NLG  
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n7exn</SPAN></FONT></DIV></FONT></DIV> <BLOCKQUOTE> <DIV align= 3Dleft  
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Message-----<BR><B>
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From:</B> owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-  
rx@engineering.sdsu.edu]<B> On Behalf Of = </B> Walter Salmaniw<BR><B> Sent:</B>  
Sunday, October 14, 2001 3:01 = PM<BR><B> To:</B> Tracey Gardner<BR><B> Cc:</B>  
Premium-Rx@kahuna.sdsu.edu<BR><B>
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Subject: </B> = Re: Prem-Rx: Dymek DR333< BR> < BR> </DIV> </FONT> < FONT  
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- -----= \_NextPart\_000\_0004\_01C154DD.DF554EA0--

-----  
Date: Sun, 14 Oct 2001 18:54:21 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: Prem-Rx: Which Racal? Guys/Gals--

I am looking for a good working/user example of a recent solid-state Racal HF receiver. There are currently opportunities to buy an RA1792, an RA6790/GM w/lo-frequency option supposedly in pristine condition with 5 xtal filters, and an RA6793A...not to mention, though I will anyway, a Plessey 2282A, which I suppose I would consider a cousin to the RAs and, if I could afford it, "accept" in place of same....

Can anyone give me a gut reaction to the above selection of Racals? Looking for comments on relative utility, performance, price, comparative value, reliability, etc.

Any comments on the Plessey relative to any of the RAs? Relative to the Harris R-590?

Thanks for your help!

--howard n7exn

-----  
Date: Sun, 14 Oct 2001 19:16:17 -0400  
From: "Ed Tanton" <n4xy@arrl.net>  
Subject: Prem-Rx: RE: [Racal] Which Racal? Hi Howard... Personally, I REALLY like my RA6790/GM. For the money, it's hard to beat. Beware of the '6790 where it only has had the eproms replaced. Yes, it goes down there, but it has poor mixing there, and no front end. I f it truly HAS the LF option, so much the better.

73 Ed Tanton N4XY <n4xy@arrl.net>

Ed Tanton N4XY 189 Pioneer Trail Marietta, GA 30068-3466

website: <http://www.n4xy.com>

All emails <IN> & <OUT> checked by Norton AntiVirus with AutoProtect

LM: ARRL QCWA AMSAT & INDEXA; SEDXC NCDXA GACW QRP-ARCI OK-QRP QRP-L #758  
K2 (FT) #00057

-----  
Date: Sun, 14 Oct 2001 18:13:04 -0700  
From: John Reed <jreed@ponca.net>  
Subject: Prem-Rx: Shocking Racal Experience I'm looking for a set of four SD215DE DMOS FETS for the front end of an RA6793A. I replaced these once, but don't ever think that lightning doesn't strike twice in the same place. A couple of evenings ago there were some storms far off, then suddenly one fairly close strike. Apparently it got the Racal again. I'm surprised that it is this easy to blow the FETs since the input filter on the receiver has diode protection and even a gas tube static discharge device. Not enough I guess. Any help with the SD215DEs will be appreciated.

73, John Reed

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End of premium-rx-digest V1 #158 \*\*\*\*\*  
Subject: premium-rx-digest V1 #159  
premium-rx-digest Saturday, October 20 2001 Volume 01 : Number 159  
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----- Date: Sun, 14 Oct 2001 20:07:34 -0500  
From: Turkisher Dan-CSLC82 <Dan.Turkisher@motorola.com>  
Subject: RE: Prem-Rx: Which Racal? I suppose you will get as many opinions as there are receiver options, but I own three RACAL's, 6790, 1792, 6217, and IMHO the best sounding of any of them (as well as Collins 651S!, HQ180, SX115, and any others I have had the pleasure to own) is the 6790. Just something about it has lowest noise levels, best fidelity, least distortion. Can't comment on the Plessey. Good luck!

Rgds

Dan

- -----Original Message-----

From: Howard L Ritter, Jr [mailto:hlritter@mindspring.com] Sent: Sunday, October 14, 2001 5:54 PM  
To: Premium-Rx@kahuna.sdsu.edu; racal@qth.net  
Subject: Prem-Rx: Which Racal?

Guys/Gals--

I am looking for a good working/user example of a recent solid-state Racal HF receiver. There are currently opportunities to buy an RA1792, an RA6790/GM w/lo-frequency option supposedly in pristine condition with 5 xtal filters, and an RA6793A...not to mention, though I will anyway, a Plessey 2282A, which I suppose I would consider a cousin to the RAs and, if I could afford it, "accept" in place of same....

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Any comments on the Plessey relative to any of the RAs? Relative to the Harris R-590?

Thanks for your help!

--howard n7exn

-----  
Date: Sun, 14 Oct 2001 22:18:11 -0400  
From: Geoff Greer <greer86@attglobal.net>  
Subject: Re: Prem-Rx: Shocking Racal Experience

Hi

Future Electronics has them. They only show quantity 500 packaging, however I have a local branch and they said that the part was available in small quantities (under 10 pieces). Hope this is of some help.

Geoff Greer Amadeus Surplus

At 18:13 10/14/01 -0700, John Reed wrote: > I'm looking for a set of four SD215DE DMOS FETS for the front end of an > RA6793A. I replaced these once, but don't ever think that lightning > doesn't strike twice in the same place. A couple of evenings ago there > were some storms far off, then

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> > 73, John Reed

> > Geoff Greer Amadeus Surplus

wj8617b@earthlink.net greer86@attglobal.net

-----  
Date: Mon, 15 Oct 2001 09:53:10 -0400

From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>

Subject: Prem-Rx: Drake R4C detailed test done in ARRL lab In my spare time :) I have performed some detailed testing on an original (unmodified) Drake R4C similar to the "expanded tests" done on some radios for QST. While I can not claim that the rig used for these tests has the same performance as when it was new, I believe it is as close as can reasonably be expected.

As Rob Sherwood would tell you, the stock R4C certainly isn't a high performer by today's standards, but it does okay. :)

For those who have seen the table of 5 kHz data in the July 2001 issue of QST, the R4C comes in at 96 dB on blocking dynamic range and 72 dB for IMD dynamic range at that spacing (the rig tested had a 1 kHz IF filter). These figures seem fairly impressive until you ponder the performance posted at 100 kHz spacing, namely 104 and 84 dB, respectively.

If anyone on this list would like a copy of the whole report, I can send it along in Adobe PDF (74k) or MS Word (260k) form.

73, Michael, KC1SX

-----  
Date: Tue, 16 Oct 2001 02:47:13 +0100

From: "Paul Reeves" <paul@paulg8gja.free-online.co.uk>

Subject: Prem-Rx: RA6775

Hi

I have just obtained a Racal RA6775 hf rx and the associated MA6003A-3 remote control (looks like a cross between the 6772E and the 6778) . I think they are in basic working order but suspect from maintenance tags that there may be a problem with the remote control. I have (I think) sorted out the discrete logic in the rx but the remote control has a micro (obsolete, of course!) in charge and I cannot get any sensible results from it. Has anyone any info on this combination or on the remote control protocol (I suspect it is the Racal SCORE interface but have only sketchy details on that).

Digressing to a more 'boatanchor' side of things, has anyone any info on a Hallicrafters EN359 rx? It was produced for the US Navy as a coherent cw hf rx by the Manson Labs division of Hallicrafters and I would rather like to get it working eventually (got to build a synthesiser for it) - it is rather unusual with 3 identical IF amplifiers/detectors (8 valves each) working in parallel (!) - and 2 high spec 100Hz xtal filters.

regards

paul g8gja

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Date: Tue, 16 Oct 2001 12:16:57 -0700

From: John Reed <jreed@ponca.net>

Subject: Re: Prem-Rx: Which Racal? Howard L Ritter, Jr wrote:



>> Guys/Gals--

>> I am looking for a good working/user example of a recent solid-state Racal > HF receiver. There are currently opportunities to buy an RA1792, an > RA6790/GM w/lo-frequency option supposedly in pristine condition with 5 xtal > filters, and an RA6793A...not to mention, though I will anyway, a Plessey > 2282A, which I suppose I would consider a cousin to the RAs and, if I could > afford it, "accept" in place of same....

>> Can anyone give me a gut reaction to the above selection of Racals? Looking > for comments on relative utility, performance, price, comparative value, > reliability, etc.

**I have a Harris RF-590, and a Racal RA6793A so I do have comparisons between these two. As far as performance, I would put them about equal. The Racal has a bit more dynamic range, and the Harris is a bit more sensitive, but a signal you can hear on one will be heard on the other. I like the operating system on the Racal better. I can move around the bands easier with it. The RA6793A has a Hall effect keypad as does the Harris. These are better than the keypad on the RA6790s. The Racal seems to have better audio.**

> > Any comments on the Plessey relative to any of the RAs? Relative to the > Harris R-590?

As far as the Plessey, I've tried to find performance data on the 2282A for some time. The data I've been able to dig up aren't especially impressive:

Sensitivity: 1 uV for 18 dB S+ N/N 300 Hz CW 1 uV for 14 dB S+ N/N 3000 Hz SSB Blocking: 121 dB Dynamic range: 83 dB at 25 KHz separation.

Both Racal and Harris beat this dynamic range easily.

Hope this helps.

John Reed, KA5QEP

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Date: Tue, 16 Oct 2001 11:02:18 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New member- David Ringold Gentlemen:

Checking in from New Haven, Connecticut, is David Ringold, our newest member. Dave is a member of the bar and uses radio as an escape from the daily challenge of his practice.

He has been a SWL type since 1969 starting with a GE World Monitor Ten, which he says, probably "doesn't make the premium receiver list" of today. Presently he owns a Racal Racal RA6790/GM (very recently acquired) and a Drake R8. His main interest in SWLing is World Music, some sports that aren't very popular in the US, and news that hasn't been filtered. Perhaps some of our SWL DXing members like Dave Clarke, John Bryant, or the "Rippel" kid could talk to this new member?

You can drop Dave a welcome at; David Ringold [dar@gowebway.com]

Greg

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Date: Tue, 16 Oct 2001 14:17:53 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: New member- David Ringold Welcome David I'm up the road in Enfield and someday in Niantic (remote radio location). I have a couple RA6830s fc

> -----Original Message----- >

From: Greg Bailey [SMTP:gbailey@mail.sdsu.edu] > Sent: Tuesday, October 16, 2001 2:02 PM > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: New member- David Ringold

> > Gentlemen:

> > Checking in from New Haven, Connecticut, is David Ringold, our newest > member. Dave is a member of the bar and uses radio as an escape from the > daily challenge of his practice.

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> > You can drop Dave a welcome at; David Ringold [dar@gowebway.com]

> > Greg

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Date: Tue, 16 Oct 2001 13:46:50 -0700

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>

Subject: Re: Prem-Rx: Which Racal? I have a Racal RA-6790 and a Watkins-Johnson WJ-8718/MFP mounted in a rack one above the other. I also have an older Racal RA-6217E. I purchased all of them with problems and repaired them.

It is a toss up which one of the synthesized radios I like better, but since you asked about the Racal:

The Racals are a pain to service. They are built like old British cars, all design and minimal engineering in the design. The big aluminum housing on the bottom of the radio makes it difficult to service, especially anything that will shift in alignment when the circuit board is lifted from the housing. The WJs use compartmentalized card cages and come with extenders - so there is clearly a better way to build a receiver. Both radios were designed for field repair by card replacement, but most of us do not have stacks of spare cards laying around. Thus ease of service and accessibility is a big issue for me.

The front panel design and the mounting of the LCDs on the Racal also gives me the willies. I would avoid any dropped or dented front panel units. There is too much fragile stuff there. The plastic bushing on the main tuning knob is pathetic. How much would a little brass have cost? If the bushing isn't badly worn, a little teflon lube or Phil Ball waterproof grease works wonders.

The rest of it is a toss up. I feed both of them through a Mini Circuits two-port passive splitter, so they get exactly the same RF. The Racal is slightly more sensitive on SSB, they are equal on AM and the WJ is more sensitive on FM (like 25780 and 10m). The WJ sounds better and is easier to operate (although the Racal is a very close second in operability). My Racal has LED illumination and the LCD is crisp and clear with no defects but the displays on the WJ are much easier to read.

My 6790 came with two synthesizer problems, one was obvious and I fixed it right away. The other was in the BFO and was much more insidious. If you buy one, try all the modes and grill the unit against a known standard. Synthesizer problems in these radios are tough to fix, especially given the paucity of service information.

I would also look for a Racal with the LSB and USB filters installed. The radio will do both modes with a single filter (slot 1), if the BITE is working properly, but the dedicated USB and LSB filters are better suited to the task. (All WJ-8718s come with seven filters).

73 Terry O' WB9GVB

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Date: Wed, 17 Oct 2001 19:54:14 +0100

From: "j.tansley" <j.tansley@btinternet.com>

Subject: Re: Prem-Rx: Which Racal? Howard,

In my opinion, having now used my new 6790/GM for a few day I can happily say it is not a patch in aesthetic terms. The readout is difficult to read for two reasons, it is side lit not back lit and the LCD's are not strong enough to provide a good contrast in the middle of functions screen. Further the lighting is patchy, front lighting sometimes is preferable from a bench light. If this were not bad enough there is a design fault which results in the LCD appearing over contrasted and thus blurred, I suspect that if the voltage supplying the LCD were reduced a touch it would produce a clean crisp display. The RA 1792, if back lit is very clear, if not it is possible to site light, or, with care, modify for back light. The RA1792 analogue type meter is easier to read as the 6790 display is placed too near the top of the screen to see comfortably when looking down on it.

The 6790/GM has no memory, ie it does not stay on the frequency it was left on, worse still it goes through a tedious self check routine each time it is switched on to establish what filters are in the set, and no doubt other things to. There is no storage facility for interesting channels, the RA 1792 has 100, The push buttons on the 1792 provide a more positive feel to their operation than the membrane of the 6790.

The 1792 has a built in speaker, can be handy in space saving situations.

Minus point to the 1792. There is only one speed to the tuning, which is ok. It is possible to change the speed by reversing the shaft encoder disc. The slower option works well. The tuning is Left hand rather than middle, not that big a deal, leaves the right hand for writing.

I am still sold on the RA 1792, a better designed set in aesthetic terms, virtually the same set inside.

Joanna Tansley

- ----- Original Message -----

From: Howard L Ritter, Jr <hlritter@mindspring.com> To: <Premium-Rx@kahuna.sdsu.edu>; <racal@qth.net> Sent: 14 October 2001 23:54

Subject: Prem-Rx: Which Racal?

> Guys/Gals--

> > I am looking for a good working/user example of a recent solid-state Racal > HF receiver. There are currently opportunities to buy an RA1792, an > RA6790/GM w/lo-frequency option supposedly in pristine condition with 5 xtal > filters, and an RA6793A...not to mention, though I will anyway, a Plessey > 2282A, which I suppose I would consider a cousin to the RAs and, if I could > afford it, "accept" in place of same....

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> > Any comments on the Plessey relative to any of the RAs? Relative to the > Harris R-590?

> > Thanks for your help!

> > --howard n7exn >

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Date: Tue, 16 Oct 2001 15:28:49 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: [Racal] Re: Prem-Rx: Which Racal? hi All, Gary Wingerd provided me with extender boards for the RA6830 so repair is very easy. I agree on the USB / LSB filters only because some software versions require the SSB filters to be installed. The 3 KHz and 3.24 KHz filters also work well for SSB. Most software packages default to filter 1 in the SSB mode. LSB requires separate filters to be installed. They are getting pretty rare though. The 1.2 KHz filter also works well as a narrow SSB filter. Selecting cw mode then tuning the BFO allows the 1.2 KHz selection. The 6830 is

10 years newer than the 6790 and has LED displays. Performance is reported to be similar. I have never run any tests on the 6790 myself. fc > -----Original Message----- >

From: Terry O'Laughlin [SMTP:terryo@wort-fm.terracom.net] > Sent: Tuesday, October 16, 2001 4:47 PM > To: Premium-Rx@kahuna.sdsu.edu; racal@qth.net > Subject: [Racal] Re: Prem-Rx: Which Racal?

>> I have a Racal RA-6790 and a Watkins-Johnson WJ-8718/MFP mounted in a rack  
>> one above the other. I also have an older Racal RA-6217E. I purchased > all > of them with problems and repaired them.  
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>> 73 Terry O' WB9GVB  
>>> \_\_\_\_\_  
>> To leave Racal , send mailto:majordomo@qth.net > with the BODY of the message containing:  
>> unsubscribe racal  
-----

Date: Tue, 16 Oct 2001 20:42:00 +0100  
From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: Which Racal? Hello Joanna

**I'm looking at the Technical Description section of my RA1792 Operator Manual and under the heading "Tuning" it says,**

**Continuously tuneable synthesizer in 10Hz steps over the entire frequency range. Frequency setting either by numerical keypad or by single tuning knob with continuously variable tuning rate from 1kHz per turn to approximately 20kHz per turn depending on the speed of rotation.**

It looks as though there are variations across the range of 1792s but I must admit that I haven't checked to see if mine has the continuously variable tuning rate as it's stored away whilst I'm building our house.

Regards

Tracey

tracey.gardner@ntlworld.com Lincolnshire U.K.

> Minus point to the 1792. There is only one speed to the tuning, which is ok. > It is possible to change the speed by reversing the shaft encoder disc. The > slower option works well. The tuning is Left hand rather than middle, not > that big a deal, leaves the right hand for writing.

> > I am still sold on the RA 1792, a better designed set in aesthetic terms, > virtually the same set inside.

> > Joanna Tansley

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Date: Tue, 16 Oct 2001 18:47:38 -0700

From: Al Klase <skywaves@bw.webex.net>

Subject: Re: Prem-Rx: Which Racal? "j.tansley" wrote: > ..... > The 6790/GM has no memory, ie it does not stay on the frequency it was left > on, worse still it goes through a tedious self check routine each time it is > switched on to establish what filters are in the set, and no doubt other > things to.....

This is because the back-up nicad on the CPU board is dead, a common problem.

73, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

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Date: Tue, 16 Oct 2001 14:36:40 -0700

From: jan@skirrow.org

Subject: Re: Prem-Rx: Which Racal? At 01:46 PM 10/16/01 -0700, Terry O'Laughlin wrote: >I have a Racal RA-6790 and a Watkins-Johnson WJ-8718/MFP mounted in a rack >one above the other. I also have an older Racal RA-6217E. I purchased >all of them with problems and repaired them.

I have no experience with the later Racal's, but have had more opportunity than I ever wanted to get into some older Racals. My experience may be atypical! But FWIW:

A fellow list member has had a series of Racals, all of which were either dead or close to it. The first was an old RA-17 - tube radio - innovative design - great look to it - in nice cosmetic shape but, as it turned out, an omen of radios to come.

It was sturdily built, with a cast Al chassis, and partially modularized construction. It reminded me of my first British car ('57 TR-3) that should have come equipped with a mechanic. Great concept, but lacking in the execution. The R-390A is of similar vintage to the RA-17, but designed and built to be easy to use by an average operator and to be easily repaired under difficult circumstances. The RA-17 probably requires more operator skill, and certainly greater technical skill to repair than the 390A. The RA-17 had its modules wired in, with wire that was very easily damaged by heat, and with little extra length to facilitate repairs. Operating a module out of the radio required making up extension cables and soldering them in.

I hadn't seen a dogbone resistor for many years, but there was one in this radio, generating a lot of heat in the power supply. It was obvious that this radio had been repaired many times, and the constant

soldering/unsoldering had taken its toll on the cheap thermoplastic wire. Filters were a \$%^ % to align. But once working, the RA-17 was impressive. I never want to see one again!

Then we moved on to a 1772 and a 6772. Solid state (discrete and TTL logic). But the same kind of execution problems were apparent. Actually it was remarkable how similar the manufacturing technology was. Everything wired in place - despite a combination swingout card and modularized construction. Many, many wires (some easily damaged stuff as in the RA-17) - - some hanging by a thread after years of swinging cards in and out of position. The printed circuit boards were not in good shape - heat and age had made them fragile so that damage to traces (they lift very easily) was difficult to avoid. HP/Tek/Collins stuff from the same era has far better printed circuitry, and durable wiring, so it could've been done.

The modularized chassis bottom boards are all in sealed compartments, and even though the solid state design doesn't generate a lot of heat - the temp rises considerably when the radio has been operating. One of the problems in the 1772 was a small peaking transformer that opened up after the radio had been on for an hour or two and the temp had gone up in its compartment.

Hand crafted: Whoever milled the main casting got carried away and ran one of the inter-compartment walls down to form a shallow valley in what should have been a straight edge. When the matching cover was screwed in place, it would've buckled, as one of the screws was in the middle of the valley. Rather than scrap an otherwise good casting, someone had carefully glued a washer over the screw hole in the valley, so that everything fit together and looked Ok from the outside. They don't make radios like that any more!

PC Board undersides on the 1772/6772 are not accessible without removing the board (requiring unsoldering and extension of at least a few wires (connections on all edges of a board makes underside repair difficult!) although the swing out cards used for some parts of the radio provided good access. Again, though, many signs of previous repair, some done well, some done badly. Globby partly cold solder joints with maybe a couple of strands of a multi-strand wire actually soldered. Etc.

The power supply boards on both of these had obviously been repaired many times - and I found the use of bits of fuse wire soldered between posts to protect the transformer windings less than useful when they had blown. Constant power supply failure suggests inadequate design. A lot of heat damage related to the power supply. Once working, however, the alignment was fairly straight-forward if lengthy.

I know some people swear by the older Racals, and hopefully the ones this list likes are built to a different philosophy and standard than the ones I've mentioned. But if you are gonna buy one, be sure it works if you don't feel able to take on the repairs or don't have someone willing to do it! I sure wouldn't spend serious money on a Racal of any vintage. Most of the many available high end radios perform very well, but some are much easier to maintain than others. I sure wouldn't trade that last tenth of a microvolt for ease of maintenance.

Jan

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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Date: Tue, 16 Oct 2001 21:48:12 EDT  
From: MW1DUJ@aol.com  
Subject: Prem-Rx: RA6790/GM FAULT

Hi

First, many thanks for all the helpful suggestions about the location of a fault on my newly acquired 6790/GM. To recap, the symptoms were, powers up, freq.display fills with zeros, and nothing except a 00 in the position where the filter selection would appear in the other display. No other functions, no

controls except volume, plenty of hiss from speaker, no BITE. Fortunately, I have another one, although I did not want to run the risk of killing it by putting in a faulty board to test. The first thing done was to check the voltages coming out of the PSU, a fault here straight away, all supplies correct except no -15V. No problem here, must be the regulator or something equally simple, so I removed the D plug containing the outputs, and checked again, just in case, the supplies were all now correct, so it was not in the PSU after all. Next step, why? It turned out to be a short on the line causing the reg. to shut down, since this supply goes through the front panel, this was disconnected, supply now restored, so it had to be in or after the front panel, next step was to disconnect the 1st LO SYNTH panel A7 and reconnect front panel, supply now ok, and quite a few more things displayed, and the fault indicator on, not seen previously. Looking at the manual showed the -15V supply coming in on pin 14, but this was not the same as the numbering on the plug, so beware. I found the right pin, and looking again at the CCT, the first thing this supply goes through was a filter network comprising C2,L2,C8,C9. I then noticed a very slight discolouring of L2, leading me to think the fault was after this, BINGO, first try, C8, a small 6.8uF tantalum was dead short. Replaced this, reconnected everything, switched on, now a few strange display readings, so tried BITE, went through fine, except for the fact that there were not enough filters, so aside from a slightly inky looking display and no filters wider than 3.4KHz, we are in business, no test equipment except a meter, so it can be done!

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Date: Wed, 17 Oct 2001 11:33:14 +0100  
From: rob.j.davies@philips.com  
Subject: Re: Prem-Rx: Which Racal? Tracey Gardner wrote:

>> Hello Joanna  
> It looks as though there are variations across the range of > 1792s but I must admit that I haven't checked to see if > mine has the continuously variable tuning rate as it's > stored away whilst I'm building our house.

Hi folks,

For what it's worth, mine does have the variable tuning rate. It also tunes in 1Hz, not 10Hz, steps.

Regards,

Rob

- -- Rob Davies United Kingdom

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Date: Wed, 17 Oct 2001 12:26:01 -0400  
From: Mark Donaldson <mark.donaldson@third-rail.net>  
Subject: Prem-Rx: WJ 8718A Schematic needed Greetings fellow list members,

I am hoping to complete repairs on a WJ 8718A receiver so I can move on to newer projects. Unfortunately this receiver had repairs attempted on it by a previous owner and in the process chips were removed from one of the boards that drives the frequency display. I need a schematic of the board to get it back to normal condition. The board part number is 794308-2, I don't think the dash number is critical. If somebody has a copy of the schematic for this board I would be happy to reimburse for copying and postage. I did contact WJ (now owned by BAE) and they are not interested in supplying individual schematics just complete manuals, I already have most of the documentation I need for the receiver, just missing this one schematic.

Thanks,

Mark Donaldson WA1QHQ

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Date: Wed, 17 Oct 2001 20:10:23 +0100

From: "Chuck Urmson" <chucku@ieee.org>  
Subject: RE: Prem-Rx: RA6775 Hi Paul,

I have recently obtained an RA6775-10/MA6003A-3 combination as well. I am in the same position as you at the moment but do have some information I can help you with. I suggest you email me off list.

Are there any other members with this receiver or the very similar RA6772E or RA6778 receivers? I would be happy to collect and re-distribute any information you may have. It appears that a bunch of these have recently come onto the second-hand market so I'm sure there will be considerable interest in getting them up and running.

Regards, Chuck Urmson M1DPD

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Paul Reeves Sent: 16 October 2001 02:47 To: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: RA6775

Hi

I have just obtained a Racal RA6775 hf rx and the associated MA6003A-3 remote control (looks like a cross between the 6772E and the 6778) . I think they are in basic working order but suspect from maintenance tags that there may be a problem with the remote control. I have (I think) sorted out the discrete logic in the rx but the remote control has a micro (obsolete, of course!) in charge and I cannot get any sensible results from it. Has anyone any info on this combination or on the remote control protocol (I suspect it is the Racal SCORE interface but have only sketchy details on that).

Digressing to a more 'boatanchor' side of things, has anyone any info on a Hallicrafters EN359 rx? It was produced for the US Navy as a coherent cw hf rx by the Manson Labs division of Hallicrafters and I would rather like to get it working eventually (got to build a synthesiser for it) - it is rather unusual with 3 identical IF amplifiers/detectors (8 valves each) working in parallel (!) - and 2 high spec 100Hz xtal filters.

regards

paul g8gja

-----  
Date: Thu, 18 Oct 2001 22:00:07 +0100

From: "j.tansley" <j.tansley@btinternet.com>

Subject: Re: Prem-Rx: Which Racal? Always willing to be proved wrong and having self doubts I have just fired up the 1792 to find the continuously variable tuning rate. As I thought, non-existent. Mine is an early set, no BI TE and no back light, that may be the answer. Reversing the tuning disc give the 1Hz resolution, and hence the slower tuning speed option.

Jo - ----- Original Message -----

From: <rob.j.davies@philips.com> To: <Premium-Rx@kahuna.sdsu.edu> Sent: 17 October 2001 11:33

Subject: Re: Prem-Rx: Which Racal?

> > > Tracey Gardner wrote:

> > > > Hello Joanna

> > > It looks as though there are variations across the range of

> > 1792s but I must admit that I haven't checked to see if



> > mine has the continuously variable tuning rate as it's  
> > stored away whilst I'm building our house.  
> > Hi folks,  
> > For what it's worth, mine does have the variable tuning rate. > It also tunes in 1Hz, not 10Hz,  
> steps.  
> > Regards,  
> > Rob  
> > > -- > Rob Davies > United Kingdom  
> >

-----  
Date: Thu, 18 Oct 2001 21:47:49 +0100  
From: "j.tansley" <j.tansley@btinternet.com>  
Subject: Re: Prem-Rx: RA6775 Hi Chuck,

I have a 6775, not started looking at it yet. No interconnecting cable and no standards fitted. Any data would be very welcome please.

Joanna - ----- Original Message -----

From: Chuck Urmson <chucku@ieee.org> To: <premium-rx@kahuna.sdsu.edu> Sent: 17 October 2001 20:10

Subject: RE: Prem-Rx: RA6775

> Hi Paul,

> > I have recently obtained an RA6775-10/MA6003A-3 combination as well. I am > in the same position as you at the moment but do have some information I can > help you with. I suggest you email me off list.

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> > Regards, > Chuck Urmson > M1DPD

> > > -----Original Message----- >

From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Paul Reeves > Sent: 16 October 2001 02:47 > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: RA6775

> > >

Hi

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> > regards

> > paul g8gja >

-----  
Date: Thu, 18 Oct 2001 19:41:54 EDT  
From: MW1DUJ@aol.com  
Subject: Prem-Rx: DYNAMIC SERVICES PANADAPTER

Hi

I have inherited a Dynamic Services panadapter, although it looks very W& J to me, it is model number R-1150-40, and is a 2U half rack sized unit. Now for the bad news, it has no CRT, so does anyone have a spare one they would like to sell? I am certain that I have seen the same unit marked W&J in some of the exotic looking racks of equipment for sale on EBAY or in the surplus houses, any suggestions? Any info. much appreciated, Dave

-----  
Date: Fri, 19 Oct 2001 11:41:19 +0100  
From: rob.j.davies@philips.com  
Subject: Re: Prem-Rx: Which Racal? Hi Joanna,

"j.tansley" wrote:

> Always willing to be proved wrong and having self doubts I have just fired > up the 1792 to find the continuously variable tuning rate. As I thought, > .non-existent. Mine is an early set, no BITE and no back light, that may be > the answer.

Well, I believe mine is early. I've not checked to see if it has BITE - it certainly doesn't make itself obvious when I turn it on - and it doesn't have a backlight (which I thought were rare anyway). I guess a change of eproms would give you the continuously variable tuning.

> Reversing the tuning disc give the 1Hz resolution, and hence the > slower tuning speed option.

I'm intrigued by this - I would have expected 1Hz/10Hz to be a software switch.

Regards,

Rob

-----  
Date: Fri, 19 Oct 2001 17:32:07 EDT  
From: Llgpt@aol.com  
Subject: Prem-Rx: R-1051 repairs now available The R-1051 series receiver now has repair support.

Check this out.....<http://www.r1051shop.com/>

I personally know this gentleman and can vouch for his expertise and integrity.

Les Locklear

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Date: Fri, 19 Oct 2001 17:28:56 -0500  
From: Bob Parnass <parnass@megsinet.net>

Subject: Re: Prem-Rx: R-1051 repairs now available Be patient when viewing this web site. It takes a long time to load using a 56K modem connection due to the background image being over 230,000 bytes long.

I've written to the web page owner.

On Friday 19 October 2001 04:32 pm, Llgpt@aol.com wrote: > The R-1051 series receiver now has repair support.

> > Check this out.....<http://www.r1051shop.com/> ... > Les Locklear

- - -

=====  
===== Bob Parnass, AJ9S [parnass@megsinet.net](mailto:parnass@megsinet.net) Linux  
user

-----  
Date: Fri, 19 Oct 2001 23:31:54 -0500  
From: "Terry O'Laughlin" <[terryo@wort-fm.terracom.net](mailto:terryo@wort-fm.terracom.net)>  
Subject: Prem-Rx: WJ manuals needed I am working on several WJ radios and am looking for information:

Information on the 380599-1 VLF converter board used in the VLF versions of the WJ-8617B. I have the WJ-8617B-26 and neither the main manual nor the option appendix cover this board.

Parts of the manual for the early versions of the WJ-8718 & MFP. Matt Parkinson kindly sent me a copy of his MFP manual which is a hacked up incomplete version from Fair Radio. It matches my radio better than the manual I already had. There are four guys looking for pieces of this manual. There are several versions of these radios (over 10,000 were manufactured). If you have a copy, the MFP-A3 and MFP-A4 boards are the crucial ones. I have information on the 796032-2 and 796029-6,7 & 8 boards but these are not in my version of the receiver.

Tuners for the 205/215/RS-160 receiver series. Any tuner manual will do: HH-11, VH-11, VH-12, VH-13, VH-14, VH-15, VH-16, VH-17, UH-11, UH-12, UH-13. I have two of the receivers with weird dash variants and I can't get the Pan, Sector, and Pan/Sec modes to work on either. All diagnostics lead to the tuners and those are the only manuals I don't have.

I can reimburse costs, trade copies of other manuals or catalogs or WJ parts in exchange.

Thanks for reading, Terry O'

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Date: Sat, 20 Oct 2001 18:42:53 EDT  
From: [CLeyson@aol.com](mailto:CLeyson@aol.com)  
Subject: Prem-Rx: HF Spectrum Analyzer on Ebay - --part1\_70.11c50dad.290357ed\_boundary

Hi All

For those who may be looking for a spectrum/network analyzer there is a nice Advantest TR4171 (Test equipment section). 120MHz spectrum and network analyzer ideal for HF design/ development R&D. Has a much better phase noise spec than HP3585 !!

Chris Leyson

- --part1\_70.11c50dad.290357ed\_boundary

< HTML > < FONT FACE= arial, helvetica > < FONT SIZE= 2 > Hi All < BR > < BR > For those who may be looking for a spectrum/network analyzer there < BR > is a nice Advantest TR4171 (Test equipment section). 120MHz spectrum < BR > and network analyzer ideal for HF design/ development

R&D. Has a much < BR> better phase noise spec than HP3585 !! < BR> < BR> Chris  
Leyson</FONT></HTML>

--part1\_70.11c50dad.290357ed\_boundary--

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End of premium-rx-digest V1 #159 \*\*\*\*\*  
Subject: premium-rx-digest V1 #160  
premium-rx-digest Tuesday, October 23 2001 Volume 01 : Number 160  
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----- Date: Sun, 21 Oct 2001 15:06:29 -0400  
From: A D Shulman DDS <dentist@nornet.on.ca>  
Subject: Prem-Rx: Project 141T completed ! Recomissioning of a defunct HP 141T has been  
satisfactorily completed.

I've been buried in the innards of this complex (for me) piece of 1978-vintage hardware for the past few weeks, and have generally been unavailable to the outside world. I am happy (and relieved) to report that the equipment is now functional, and in the process I have learned a great deal, and made a lot of good new friends.

For the technically inclined, the s/a was probably in working order when it was shipped to me from New England, and in shipping, suffered some mechanical damage resulting in a short in the IF plugin, which resulted in some power supply damage. I compounded the problem by substituting a larger-than-recommended fuse to troubleshoot the problem. Repairs consisted of replacing 4 transistors & the neon reference lamp in the power supply, a number of fuses (correct size this time), locating & repairing the short in the IF plugin, & cleaning & reseating the plugin boards in the IF module.

The repairs also involved investigation of the health of the first mixer assembly in the 110mhz RF plugin, which in turn led to a search for extension cables to service the modules & boards outside of the mainframe. Up to this point, I had the power supply working, a horizontal trace, but no vertical deflection at all. I had still not determined whether the RF or IF plugging, or both was at fault, since without the ability to get the plugins operational outside of the mainframe, my access to test points was very limited.

The quest for 24-pin plugs & matching sockets, and the SPECIAL interconnecting cable led down a number of blind alleys until I stumbled across, not 50 miles from home, a SECOND 411T which was alleged to be about a week short of being relocated to a dumpster! This unit came mounted in a desk-console, had the 1.2ghz plugin I had been looking for, and as a special bonus, had a matching tracking generator! As usual, hard cash was a good persuader, and I departed poorer but happy, with the plugins under my arm until I could arrange to pick up the rest of the goodies!

Now, with two new working plugins, I could zero in on the defective modules I already owned, and a few hours of bench time yielded two complete working RF/IF assemblies.

I'm still interested in obtaining the three extender cables for future troubleshooting & calibration, but everything from 100khz to 1.2ghz is now operational.

As soon as possible, I'd like to write personally to everyone that helped with advice, experience, but most of all, their personal time & encouragement. I couldn't have done this alone!

Once again, a big THANK YOU to all.

Arthur Shulman

-----  
Date: Sun, 21 Oct 2001 12:21:05 -0700  
From: "John Miles" <jmiles@pop.net>

Subject: Re: Prem-Rx: Project 141T completed ! > I'm still interested in obtaining the three extender cables for future > troubleshooting & calibration, but everything from 100khz to 1.2ghz is > now operational. >

Glad you got 'er working! When I had my 141T, I was able to work on it by temporarily soldering lengths of Kynar wire-wrap wire to various test points in the plugins and running the wire through the cracks between the plugins and/or the sides of the mainframe. Those extenders are very hard to come by, as you've discovered. You could have some made up by George Kerber (glkinst@earthlink.net), but it will cost you more than the 141T did.

Very nice to have two units.

- -- jm

-----  
Date: Sun, 21 Oct 2001 16:40:04 -0400  
From: Geoff Greer <greer86@attglobal.net>  
Subject: Prem-Rx: Re: [TEST-EQUIPMENT] Project 141T completed !

Hi

The extender cables are not a insurmountable obstacle. I made my own set. I got the needed connectors from Bill Perry at Wm Perry Co (502-893-8724). The manuals will show you the wiring and which cables should be shielded. You will have to fabricate your own handles for the cables that go from the main frame to the plugins. I think I used threaded brass stock which also served as the strain relief for the cables. I marked the cables upper/RF and lower/IF just to make sure I got the plugs in the right sockets. Bill can supply the D connectors with the coaxial contacts you will need for the interconnect cable between the RF and IF head. I think I used RG188 for the coax. You will need a tiny iron to do the center pins on the contacts.

Regards, Geoff Greer

At 15:06 10/21/01 -0400, A D Shulman DDS wrote: > Recomissioning of a defunct HP 141T has been satisfactorily completed.

> > I've been buried in the innards of this complex (for me) piece of > 1978-vintage hardware for the past few weeks, and have generally been > unavailable to the outside world. I am happy (and relieved) to report > that the equipment is now functional, and in the process I have learned > a great deal, and made a lot of good new friends.

> > For the technically inclined, the s/a was probably in working order when > it was shipped to me from New England, and in shipping, suffered some > mechanical damage resulting in a short in the IF plugin, which resulted > in some power supply damage. I compounded the problem by substituting a > larger-than-recommended fuse to troubleshoot the problem. Repairs > consisted of replacing 4 transistors & the neon reference lamp in the > power supply, a number of fuses (correct size this time), locating & > repairing the short in the IF plugin, & cleaning & reseating the plugin > boards in the IF module.

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> > The quest for 24-pin plugs & matching sockets, and the SPECIAL > interconnecting cable led down a number of blind alleys until I stumbled > across, not 50 miles from home, a SECOND 411T which was alleged to be > about a week short of being relocated to a dumpster! This unit came > mounted in a desk-console, had the 1.2ghz plugin I had been looking for, > and as a special bonus,

had a matching tracking generator! As usual, > hard cash was a good persuader, and I departed poorer but happy, with > the plugins under my arm until I could arrange to pick up the rest of > the goodies!

> > Now, with two new working plugins, I could zero in on the defective > modules I already owned, and a few hours of bench time yielded two > complete working RF/IF assemblies.

> > I'm still interested in obtaining the three extender cables for future > troubleshooting & calibration, but everything from 100khz to 1.2ghz is > now operational.

> > As soon as possible, I'd like to write personally to everyone that > helped with advice, experience, but most of all, their personal time & > encouragement. I couldn't have done this alone!

> > Once again, a big THANK YOU to all.

> > Arthur Shulman

> > > > --- > Submissions test-equipment@qth.net > Geoff Greer Amadeus Surplus  
wj8617b@earthlink.net greer86@attglobal.net

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Date: Tue, 23 Oct 2001 14:02:58 -0400

From: "Chuck Rippel" <avsl@erols.com>

Subject: Re: Prem-Rx: R-1051 repairs now available Same here. The R1051 family of receiver is very much "undersold" with regard to capability in the SSB arena. In fact, I would characterize their level of current hobby acceptance with that of the R390A about 6 years ago. The R1051 is the receiver for an R390A owner who wants to receiver SSB.

When I was with Northrup, we were involved with a project that involved literally hundreds of them. Once warmed up, they are very stable. I believe the spec is 10 X -9 but at the cost of a 96 hour or some such number warm up time. The receiver is also EMP hardened part of that system being its solid aluminium case and 2 tube front end.

I have 2 of the "H" variants. While they are not band scanners, for channelized operation such as military monitoring (and there has been a bunch of that of late), the receiver is superb.

> The R-1051 series receiver now has repair support.

> > Check this out.....<http://www.r1051shop.com/>

> > I personally know this gentleman and can vouch for his expertise and > integrity.

> > Les Locklear

-

-----  
---- Chuck Rippel

"Every day is different. Sometimes you are the bug, others you are the windshield."

Reply to: AVSL@erols.com -

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Date: Tue, 23 Oct 2001 20:24:39 -0400 (EDT)

From: Terry Marsh <marsh@mediaone.net>

Subject: Prem-Rx: Marsh 2471 Carria.

*Content deleted ...*

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premium-rx-digest Friday, October 26 2001 Volume 01 : Number 161

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Date: Wed, 24 Oct 2001 07:36:05 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: Recent Spam post [marsht@mediaone.net] Gentlemen:

I assume we all received a post from the above address? The post contained a high school vita. This is obviously an inappropriate use of the Premium-Rx list. The transmission generated five virus alarms which were automatically bounced to my site by the servers some of you use.

Please be advised that we do not have a **\*\*\*marsht@mediaone.net\*\*\*** in our membership unless this person has two e-mail accounts and I don't know of this address. I can only assume the post was generated via a virus that wormed its way into someone's address book.

As of a week ago, I have directed our Unix "driver" to close our List so that you must be a member to post, or look at the membership list.

In the three years we have shared E-mail on technical topics via this List, I have only considered two posts totally off topic (this being one) and/or SPAM. Mathematically, that is in the ballpark of 0.1%.

For those who wrote me regarding the above post, much thanks for your interest, I hope the List continues to serve us, and NOT the digital dark side of SPAM.

Greg

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Date: Wed, 24 Oct 2001 12:34:13 -0700  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: R-1051 repairs now available At 02:02 PM 10/23/01 -0400, Chuck Rippel wrote:  
>Same here. The R1051 family of receiver is very much "undersold" with >regard to capability in the SSB arena. In fact, I would characterize >their level >of current hobby acceptance with that of the R390A about 6 years ago. The >R1051 is the receiver for an R390A owner who wants to receiver SSB.

I agree completely. It takes awhile to get used to the "dial-up" approach, but once you get used to it it is no more difficult to use than an R-390A - which is also not really a band spinner.

The only drawback to the 1051, in my view, is the difficulty of repairing them. Of the ones I have, two have spent many hours on the bench and I still can't track down the problem. The main barrier is that the case and modular construction are so tight and compact that it is very difficult to troubleshoot anything "in-situ" and operating a module out of the case (and for the six-pack, a sub-module out of a module) requires a lot of patience, and many special cables.

It's great that someone is specializing in the repair of these radios, and their modules. Should make this radio able to assume it's rightful place!

Jan Skirrow (1051 and 1051D operating!)

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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Date: Wed, 24 Oct 2001 17:35:38 -0700  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>

Subject: Prem-Rx: Virus Spam on our List A number of List members have informed me that the virus/spam posted on our List earlier this morning has actually been circulating on the internet the past few days.

**Normal internet survival policy should be followed- DO NOT open attachments unless you are expecting them (and know the author)**

- OR -

**unless you got more time than I do and want to play nurse maid to your sick C Drive :-))))**

**Greg**

-----  
Date: Thu, 25 Oct 2001 08:26:14 -0700  
From: John Reed <jreed@ponca.net>  
Subject: Re: Prem-Rx: R-1051 repairs now available jan@skirrow.org wrote:

>> At 02:02 PM 10/23/01 -0400, Chuck Rippel wrote:  
>> Same here. The R1051 family of receiver is very much "undersold" with  
>> regard to capability in the SSB arena. In fact, I would characterize  
>> their level  
>> of current hobby acceptance with that of the R390A about 6 years ago. The  
>> R1051 is the receiver for an R390A owner who wants to receiver SSB. > It's great that someone is  
specializing in the repair of these radios, and > their modules. Should make this radio able to assume  
it's rightful place! >

**The reception characteristics might leave something to be desired though. Aside from good stability, the bipolar transistor mixer gives this receiver a third order IMD dynamic range of + 45 dB at 20 KHz spacing. Nothing to brag about here, in fact this is a "poor" rating based on the RDI lab test ratings.**

**John Reed**

-----  
Date: Thu, 25 Oct 2001 13:06:39 -0400  
From: "Chuck Rippel" <avsl@erols.com>  
Subject: Re: Prem-Rx: R-1051 repairs now available Perhaps in the early R1051 and R1051B models.  
Has anyone tested a newer generation "G" or "H" model? I find my "H" models to be quite  
satisfactory.

> **The reception characteristics might leave something to be desired > though. Aside from good  
stability, the bipolar transistor mixer gives > this receiver a third order IMD dynamic range of + 45  
dB at 20 KHz > spacing. Nothing to brag about here, in fact this is a "poor" rating > based on the  
RDI lab test ratings.**

> > **John Reed**

-

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---- **Chuck Rippel**

**"Every day is different. Sometimes you are the bug, others you are the windshield."**

**Reply to: AVSL@erols.com -**

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Date: Thu, 25 Oct 2001 13:18:50 -0400

From: "Chuck Rippel" <avsl@erols.com>

Subject: Prem-Rx: Re: R-1051 > I agree completely. It takes awhile to get used to the "dial-up" approach, but > once you get used to it it is no more difficult to use than an R-390A - which is > also not really a band spinner.

> The only drawback to the 1051, in my view, is the difficulty of repairing > them. Of the ones I have, two have spent many hours on the bench and I > still can't track down the problem. The main barrier is that the case and > modular construction are so tight and compact that it is very difficult to > troubleshoot anything "in-situ" and operating a module out of the case (and for > the six-pack, a sub-module out of a module) requires a lot of patience, and many > special cables.

I agree with the above. When I was working with these with Northrup, we were being supported by Harris on their actual servicing. While they are very serviceable while still mounted in a rack (a marketing plus), trying to work on one without the extender boards and jigs is a challenge.

> It's great that someone is specializing in the repair of these radios, and their > modules. Should make this radio able to assume it's rightful place!

> > Jan Skirrow (1051 and 1051D operating!)

> > > ... in beautiful British Columbia, Canada

> > \*\*\* <http://skirrow.org/Boatanchors/> \*\*\* >

=====  
== = 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, 25 Oct 2001 10:36:10 -0700

From: jmcvein@teleport.com

Subject: Re: Prem-Rx: R-1051 repairs now available

From: "Chuck Rippel" <avsl@erols.com> To: jreed@ponca.net Date sent: Thu, 25 Oct 2001 13:06:39 -0400

Subject: Re: Prem-Rx: R-1051 repairs now available Send reply to: AVSL@erols.com Copies to: premium-rx@kahuna.sdsu.edu

> Perhaps in the early R1051 and R1051B models. Has anyone tested a > newer generation "G" or "H" model? I find my "H" models to be quite > satisfactory.

Later ones (-"D" or "E" up?) had diode ring mixers in the 6-pack, also a buffer after the envelope detector to make AM reception barely tolerable. Fun radio, cool noises, I traded mine off in 1994 to pick up a '6830 Racal. I was astonished at the lack of synth noise in the Racal vs. the unlettered 1051.  
> Jim McVein

-----  
Date: Thu, 25 Oct 2001 10:41:16 -0700

From: jmcvein@teleport.com

Subject: Prem-Rx: Parts, line one. Hi.. I have a 6790gm Racal here with a duff A7 card. Anyone got a line on obtaining a Motorola ECL dip in single quantity? MC10211P or L The pulses check in, but they don't check out. Kind of like the roach motel.

**Jim McVein**

-----  
Date: Thu, 25 Oct 2001 13:46:03 EDT  
From: Llgpt@aol.com  
Subject: Re: Prem-Rx: R-1051 repairs now available In a message dated 10/25/01 12:05:27 PM, avsl@erols.com writes:

<< Perhaps in the early R1051 and R1051B models. Has anyone tested a newer generation "G" or "H" model? I find my "H" models to be quite satsafactory.

> The reception characteristics might leave something to be desired > though. Aside from good stability, the bipolar transistor mixer gives > this receiver a third order IMD dynamic range of + 45 dB at 20 KHZ > spacing. Nothing to brag about here, in fact this is a "poor" rating > based on the RDI lab test ratings.

> > John Reed > >

Lab tests and real world situations are two different animals. Chuck and i have both talked about the R-1051X receivers. In some situations, they actually out perform their more modern (or older) counterparts.

I realise that the toip and dynamic range sucks, but that is best left to test instruments. The instruments I use most of the time are located on each side of my head.

Les Locklear " That's my story and I'm sticking to it "

-----  
Date: Thu, 25 Oct 2001 14:25:02 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: R-1051 repairs now available Hi All,

Does this mean that the discussions re lab tests of performance are unnecessary or does it mean that there are laboratory tests not yet performed that would be meaningful in evaluation of RX perf?

Responses incorporating:

1. Each of us has his own way and blah blah.....

or

2. Chuck and Les can't hear.....

are disallowed.

It's the physics, or is it the psychophysics?

Steve

On Thu, 25 Oct 2001 Llgpt@aol.com wrote:

> > In a message dated 10/25/01 12:05:27 PM, avsl@erols.com writes:

> > << Perhaps in the early R1051 and R1051B models. Has anyone tested a newer > generation "G" or "H" model? I find my "H" models to be quite satsafactory.

> > > The reception characteristics might leave something to be desired

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> > > John Reed

> >

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instruments I use most of the time are located on each > side of my head.

> > > Les Locklear > " That's my story and I'm sticking to it " >

-----

Date: Thu, 25 Oct 2001 14:33:47 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: R-1051 repairs now available When I was a kid we marked off a quarter mile on  
a straight road.

> -----Original Message----- >

From: Steve Stutman [SMTP:steve@xenon.clickadeal.com] > Sent: Thursday, October 25, 2001 2:25  
PM > To: Llgpt@aol.com > Cc: avsl@erols.com; jreed@ponca.net; premium-rx@kahuna.sdsu.edu  
>

Subject: Re: Prem-Rx: R-1051 repairs now available

> > Hi All,

> > Does this mean that the discussions re lab tests of performance are > unnecessary or does it  
mean that there are laboratory tests not yet > performed that would be meaningful in evaluation of RX  
perf?

> > Responses incorporating:

> > 1. Each of us has his own way and blah blah.....

> > or

> > 2. Chuck and Les can't hear.....

> > are disallowed.

> > > It's the physics, or is it the psychophysics?

> > > Steve

> > > On Thu, 25 Oct 2001 Llgpt@aol.com wrote:

> > > > In a message dated 10/25/01 12:05:27 PM, avsl@erols.com writes:

> > > > << Perhaps in the early R1051 and R1051B models. Has anyone tested a > newer  
> > generation "G" or "H" model? I find my "H" models to be quite > satsafactory.

> > > > The reception characteristics might leave something to be desired

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> > > this receiver a third order IMD dynamic range of + 45 dB at 20 KHz  
> > > spacing. Nothing to brag about here, in fact this is a "poor" rating  
> > > based on the RDI lab test ratings.  
> > > > > John Reed  
> > >  
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> > > > each  
> > side of my head.  
> > > > > > > > Les Locklear  
> > " That's my story and I'm sticking to it "  
> >

-----  
Date: Thu, 25 Oct 2001 14:48:03 -0400  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>  
Subject: Prem-Rx: RE: "Real world" lab testing Steve Stutman wrote:

> Does this mean that the discussions re lab tests of performance are > unnecessary or does it mean that there are laboratory tests not yet > performed that would be meaningful in evaluation of RX perf?

No and yes! :-) As I think I mentioned a couple of months ago, lab tests, however detailed, are at best a very simplistic model of real world performance. With the right equipment, you could probably get a lot closer, but it would likely take about 3-4 times as long to do the testing...

Then again, I certainly don't have access to what I'd consider to be the right equipment anyway!

> 1. Each of us has his own way and blah blah.....

I am of the opinion that having different ways of testing is acceptable, so long as the differences are properly documented, and hopefully explained in some meaningful manner to the target audience. Note that I'm not saying that this has been done adequately.

> It's the physics, or is it the psychophysics?

A mixture of both, actually! :-) Consider automobile performance testing - car magazines that report performance details often show dynamometer runs, 1/4-mile times, steady-state cornering limits and slalom speed. None of these things reflect exactly what people do in cars out on the street (at least, not legally anyway), but they nonetheless serve to provide \*some\* meaningful means of comparison. Perfect? No. Adequate? Mostly.

73, Michael Tracy, KC1SX, ARRL Lab  
-----

Date: Thu, 25 Oct 2001 14:56:32 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: RE: "Real world" lab testing Hi Michael, There is the effect of, I just paid big bucks for this radio and it works great! (I hope). fc

> -----Original Message----- >

From: Tracy, Michael, KC1SX [SMTP:mtracy@arrl.org] > Sent: Thursday, October 25, 2001 2:48 PM  
> To: 'Steve Stutman'; Llgpt@aol.com > Cc: avsl@erols.com; jreed@ponca.net; premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: RE: "Real world" lab testing

> > Steve Stutman wrote:

> > > Does this mean that the discussions re lab tests of performance are

> > unnecessary or does it mean that there are laboratory tests not yet

> > performed that would be meaningful in evaluation of RX perf?

> > No and yes! :-) As I think I mentioned a couple of months ago, lab > tests, > however detailed, are at best a very simplistic model of real world > performance. With the right equipment, you could probably get a lot > closer, > but it would likely take about 3-4 times as long to do the testing...

> > Then again, I certainly don't have access to what I'd consider to be the > right equipment anyway!

> > > 1. Each of us has his own way and blah blah.....

> > I am of the opinion that having different ways of testing is acceptable, > so > long as the differences are properly documented, and hopefully explained > in > some meaningful manner to the target audience. Note that I'm not saying > that this has been done adequately.

> > > It's the physics, or is it the psychophysics?

> > A mixture of both, actually! :-) Consider automobile performance testing > - > car magazines that report performance details often show dynamometer runs, > 1/4-mile times, steady-state cornering limits and slalom speed. None of > these things reflect exactly what people do in cars out on the street (at > least, not legally anyway), but they nonetheless serve to provide \*some\* > meaningful means of comparison. Perfect? No. Adequate? Mostly.

> > 73, Michael Tracy, KC1SX, ARRL Lab

-----  
Date: Thu, 25 Oct 2001 12:31:04 -0700

From: "John Miles" <jmiles@pop.net>

Subject: Re: Prem-Rx: Parts, line one. A couple of vendors listed at <http://www.findchips.com> appear to have them in stock. Search on 'MC10211' without a suffix.

Lucky thing, too, those old 10000-series ECL DIPs are getting hard to find. They're all out of production (replaced by the surface-mount EL series) as far as I'm aware.

- - jm

- ----- Original Message -----

From: <jmcvein@teleport.com> To: <premium-rx@kahuna.sdsu.edu> Sent: Thursday, October 25, 2001 10:41 AM

Subject: Prem-Rx: Parts, line one.

> Hi.. I have a 6790gm Racal here with a duff A7 card. Anyone got a > line on obtaining a Motorola ECL dip in single quantity? > MC10211P or L > The pulses check in, but they don't check out. > Kind of like the roach motel.

> > Jim McVein >

-----  
Date: Thu, 25 Oct 2001 16:24:30 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Parts, line one. Just make sure the pull down resistor is connected. These ECL parts are open emitter so there is no output without the pull down resistor. Might be just a bad connection. The pull down will be terminated to ground or minus 5 volts depending on the circuit configuration. fc

> -----Original Message----- >

From: John Miles [SMTP:jmiles@pop.net] > Sent: Thursday, October 25, 2001 3:31 PM > To: jmcvein@teleport.com; premium-rx@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: Parts, line one.

> > A couple of vendors listed at <http://www.findchips.com> appear to have them > in stock. Search on 'MC10211' without a suffix.

> > Lucky thing, too, those old 10000-series ECL DIPs are getting hard to > find. > They're all out of production (replaced by the surface-mount EL series) as > far as I'm aware.

> > -- jm

> > ----- Original Message ----- >

From: <jmcvein@teleport.com

> > To: <premium-rx@kahuna.sdsu.edu

> > Sent: Thursday, October 25, 2001 10:41 AM >

Subject: Prem-Rx: Parts, line one.

> > > > Hi.. I have a 6790gm Racal here with a duff A7 card. Anyone got a > > line on obtaining a Motorola ECL dip in single quantity?

> > MC10211P or L

> > The pulses check in, but they don't check out.

> > Kind of like the roach motel.

> > > > Jim McVein

> >

-----  
Date: Thu, 25 Oct 2001 18:16:40 -0700

From: John Reed <jreed@ponca.net>

Subject: Re: Prem-Rx: R-1051 repairs now available Steve Stutman wrote:

>> Hi All,

>> Does this mean that the discussions re lab tests of performance are > unnecessary or does it mean that there are laboratory tests not yet > performed that would be meaningful in evaluation of RX perf?

Here's my take on comparing receivers FWIW:

First buy every receiver you can get hold of, then test them with the same antenna and audio output. Pick the one you like best under difficult DX conditions. That's simple isn't it?

I'm sorry to say I don't have the money, space or time to carry this out. Therefore I have to be content with the alternative of comparing specs on the receivers I think would be best to own. The specs might not tell you everything but at least they test receivers on an equal footing if done correctly. Once you decide which specs are important then buy a couple of receivers that have the best chance of meeting your needs and compare them.

Anybody else have suggestions of methods for comparing receivers?

John Reed

-----  
Date: Thu, 25 Oct 2001 20:10:20 -0400

From: michael j brown <piggin@mindspring.com>

Subject: Prem-Rx: Receiver Testing John Reed is right. If testing is done correctly, the tests should be repeatable and act as a guide to the type of performance one needs. Then the subjective element enters in. I like straightforward to operate radios, so I weigh ergonomics heavily. I don't mind tons of controls...if they are dedicated to one function. Plus, I am a bigger than normal human being (My altitude exceeds 6'4") So I dislike tiny chicklet keys which need a stylus to operate. Audio response, the way the rig sounds when a monster station is on the edge of the passband etc can be difficult to quantify exactly. The sounds that come out as you tune through a strong station..... Relating this to ultimate rejection and filter bandpass response is tricky..... what one listens to to decide if the radio is superb or a dog varies. But the numbers about ultimate rejection are easy to measure.... same with IMD and IP3. Knowing the specs + actual use + user preferences = informed decision and hours of fun. The real trick is finding a receiver reviewer who tests properly and has exactly the same preferences as you. Hmmm.... that's problematic! Here's a radical suggestion. How about a gathering of some members of the list who have lots of different radios and let them test drive each others rigs. Then a followup report from each attendee on which rigs were best to them and why. Then publish the results as a guide to premium rx's. This, along with lab test results, is something to consider.

-----  
Date: Thu, 25 Oct 2001 20:30:17 EDT

From: Daiungoed@aol.com

Subject: Re: Prem-Rx: Receiver Testing

Hi

There is another, much simpler way of finding out which receiver is best, find some group members who have several different types, and ask them, honestly, which receiver they listen to as background when doing other things, not why do they feel that they should be listening to their "axyzz " BUT WHAT ARE THEY REALLY LISTENING TO??? I have several premium types, but the one that's on most is a simple LOWE HF-235, sounds great to me, any comment? Maybe if there are enough replies, you could find one that stands out!! Dave

-----  
Date: Thu, 25 Oct 2001 21:43:07 EDT

From: Llqpt@aol.com

Subject: Re: Prem-Rx: Receiver Testing In a message dated 10/25/01 7:31:51 PM, Daiungoed@aol.com writes:

<< BUT WHAT ARE THEY REALLY LISTENING TO??? I have several premium types, but the one that's on most is a simple LOWE HF-235, sounds great to me, any comment? >>

Now that is a good sounding receiver..

The one I prefer to listen for program/music listening is the Drake R8B.

Critical ssb R-2174/URR/6790GM.

Les

-----  
Date: Thu, 25 Oct 2001 16:57:08 -0500  
From: "herschel p mccullough" <w5hpm@airmail.net>  
Subject: Re: Prem-Rx: Receiver Testing no doubt here Harris 590 nuff said...mac/mc - ----- Original Message -----

From: <Daiungoed@aol.com> To: <premium-rx@kahuna.sdsu.edu> Sent: Thursday, October 25, 2001 7:30 PM  
Subject: Re: Prem-Rx: Receiver Testing

>

Hi

> There is another, much simpler way of finding out which receiver is best, > find some group members who have several different types, and ask them, > honestly, which receiver they listen to as background when doing other > things, not why do they feel that they should be listening to their "axyzz " > BUT WHAT ARE THEY REALLY LISTENING TO??? I have several premium types, but > the one thats on most is a simple LOWE HF-235, sounds great to me, any > comment? Maybe if there are enough replies, you could find one that stands > out!! Dave >

-----  
Date: Thu, 25 Oct 2001 16:59:31 -0500  
From: "herschel p mccullough" <w5hpm@airmail.net>  
Subject: Re: Prem-Rx: Receiver Testing I d go for this...and offer up my treasures for objective testing.... - ----- Original Message -----

From: michael j brown <piggin@mindspring.com> To: <premium-rx@kahuna.sdsu.edu> Sent: Thursday, October 25, 2001 7:10 PM  
Subject: Prem-Rx: Receiver Testing

> John Reed is right.If testing is done correctly, the tests should be > repeatable and act as a guide to the type of performance one needs.Then the > subjective element enters in.I like straightforward to operate radios, so I > weigh ergonomics heavily.I dont mind tons of controls...if they are > dedicated to one function.Plus, I am a Bigger than normal human being(My > altitude exceeds 6'4")So I dislike tiny chicklet keys which need a stylus > to operate.Audio response, the way the rig sounds when a monster station is > on the edge of the passband etc can be difficult to quantify exactly.The > sounds that come out as you tune through a strong station.....Relating > this to ultimate rejection and filter bandpass response is tricky.....what > one listens to to decide if the radio is superb or a dog varies.But the > numbers about ultimate rejection are easy to measure....same with IMD and > IP3.Knowing the specs + actual use + user preferences = informed decision > and hours of fun.The real trick is finding a receiver reviewer who tests > properly and has exactly the same preferences as you.Hmmmm....thats > problematic!Heres a radical suggestion.How about a gathering of some > members of the list who have lots of different radios and let them test > drive each others rigs.Then a followup report from each attendee on which > rigs were best to them.and why.Then publish the results as a guide to > premium rxs.This, along with lab test results, is something to consider. >



Date: Fri, 26 Oct 2001 07:42:22 +0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Prem-Rx: RA-6793A Hi all,

need some last-minute-info. Tomorrow there's a big hamfest here in Hannover, North Germany. A guy who knows my preference for professional grade receivers called and said he'd bring something I'd be interested in. A RA-6793A. Now, what's the big difference to the RA-6790GM, apart from having "real buttons" and a bigger frequency display ??? I have a RA-6790GM in pristine condition on loan for a few month presently while the owner is away. Great radio !!! Now I wonder about the 6793. Especially, if the price is right (I don't know yet), what should I look for in the 6793 ???

Any hints will be most welcome !!!

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 52:27N - 09:42E  
<http://www.qsl.net/dl4obn>

-----  
Date: Fri, 26 Oct 2001 02:01:55 -0700  
From: Al Klase <skywaves@bw.webex.net>  
Subject: Re: Prem-Rx: RA-6793A Thomas,

Circuit and performance is very similar to the 6790GM. In fact, a lot of the modules are interchangeable. The big difference is that it has 100 memories and scanning functions.

Al

Thomas Roth wrote:

> > Hi all,

> > need some last-minute-info. Tomorrow there's a big hamfest here in Hannover, > North Germany. A guy who knows my preference for professional grade receivers > called and said he'd bring something I'd be interested in. A RA-6793A. Now, > what's the big difference to the RA-6790GM, apart from having "real buttons" > and a bigger frequency display ??? I have a RA-6790GM in pristine condition on > loan for a few month presently while the owner is away. Great radio !!! Now I > wonder about the 6793. Especially, if the price is right (I don't know yet), > what should I look for in the 6793 ???

> > Any hints will be most welcome !!!

> > 73 de Thomas, DL1CQ > FISTS #6402, CC #1036 > AGCW-DL #2943 > 52:27N - 09:42E  
> <http://www.qsl.net/dl4obn>

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

-----  
Date: Fri, 26 Oct 2001 01:49:28 -0400  
From: michael j brown <piggin@mindspring.com>  
Subject: Prem-Rx: re radio I actually use I have 2 ITT Mackay Marine 3031As. Since I got these, they are what I use almost exclusively. I use them for HF utilities, LF beacon hunting and lower reception and also the occasional session of AM BCB dxing. I have a Drake R8A....I use it very, very rarely now. And I fire up the old SP-600 pretty much just to keep the caps formed.

-----  
Date: Fri, 26 Oct 2001 05:53:06 +0000  
From: "june smith" <msdscs@hotmail.com>

Subject: Prem-Rx: Test <html><div style='background-color:'><DIV> <P>This is a test to see if this list is open or closed.</P> <P>Greg<BR><BR></P></DIV></div><br clear=all><hr>Get your FREE download of MSN Explorer at <a href='http://go.msn.com/bql/hmtag\_itl\_EN.asp'>http://explorer.msn.com</a><br></html>

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Date: Fri, 26 Oct 2001 20:38:50 +1300  
From: "Helen and David Norrie" <norriecan@clear.net.nz>  
Subject: Prem-Rx: Receiver testing

- -----= \_NextPart\_000\_002F\_01C15E5E.388101C0

Both Michael and Dave have points that are valid. Michael's is the more = scientific and definitely worth doing. But that subjective "how does the = radio sound an how often do you use it" is a a powerful measure for me. Put my vote down for the AOR 7030 with the Lowe 225 or 150 as good = seconds.

This choice can't be scientific since I have never listened on some of = the magnificent receivers mentioned in this mailing list. Best regards David Norrie Auckland NZ

- -----= \_NextPart\_000\_002F\_01C15E5E.388101C0

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<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML> <HEAD>
<META content= 3D"text/html; charset= 3Diso-8859-1" = http-equiv= 3DContent-Type> <META
content= 3D"MSHTML 5.00.2919.6307" name= 3DGENERATOR> <STYLE> </STYLE>
</HEAD> <BODY bgColor= 3D#ffffff> <DIV> <FONT face= 3DArial size= 3D2> Both Michael
and Dave&nbsp;have points = that are valid. Michael's is the more scientific and definitely worth
doing. But = that subjective "how does the radio&nbsp;sound an how often do you use it" is = a a
powerful measure for me.</FONT></DIV> <DIV><FONT face= 3DArial size= 3D2> Put my vote
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<DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> This choice can't be scientific
since I = have never&nbsp;listened on some of the magnificent receivers mentioned in = this mailing
list.</FONT></DIV> <DIV><FONT face= 3DArial size= 3D2> Best regards</FONT></DIV>
<DIV><FONT face= 3DArial size= 3D2> David Norrie</FONT></DIV> <DIV><FONT
face= 3DArial size= 3D2> Auckland = NZ&nbsp;</FONT></DIV></BODY></HTML>
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- -----= \_NextPart\_000\_002F\_01C15E5E.388101C0--

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Date: Fri, 26 Oct 2001 11:23:27 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: What makes a good receiver I t's fascinating watching the amount of postings generated by the age-old topic of receiver measurements. I've said it before so I'll repeat it again. This group is actually a panel of the best qualified people in the world to answer the question, and it's my opinion that the RF measurements that we (and me in particular) carry out on premium receivers are actually low on the totem pole in terms of importance. It's a fact that since the arrival of the Racal RA-1772, everything I have measured in the premium range has exactly the same figures within a dB or so when it comes to noise floor, sensitivity, selectivity, 3rd order intercept and so on, and the real differences come from other factors such as agc performance under stepped signal conditions, gain distribution through the receiver (e.g. Cubic 3030 as a "not so good"), detector performance (including DSP algorithms) and good old fashioned audio response. Next most important thing is how the receiver handles when used by an operator, although this also has to include how software works for remote controlled units like the 95S-1 etc. The best way to determine which are the "best" receivers is to read everything that has been said on this site and determine which unit carries the most plus points with the members of the group. Finally, what a pleasure personally, to see "my" Lowe receivers being mentioned as "good to use". That's what John Thorpe and I spent a lot of time on

when we laid the keels for the boats. You, ladies and gentlemen, are your own best experts. Listen to yourselves and learn. 73 John Wilson

- ----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

Date: Fri, 26 Oct 2001 08:34:48 -0400  
From: michael j brown <piggin@mindspring.com>  
Subject: Prem-Rx: Receiver Testing Hearing what people actually use is useful.HOWEVER....I dont have a Harris RF-590A, A WJ-8711 ,Ten Tec 340 ect.But people on the list do.I t would be more than a little helpful(and heaps of fun) to have a broad "battle of the Titans" involving as many users as possible.The Illustrious Mr. Sherwood has tested many of the radios in question,so I move to accept his specs.Now what we need is a premium-rx "party" with as many rigs and users as possible.I deally, people with different perspectives using each others rigs would shed some light on why they like the rigs they do, and the pluses and minuses of using them.Should I sell everything to buy a RF-590A.....I dont know.But a comparison test could help me decide!As a plus, I beleive the results would be worthy of publication....and might even advance the state of the art in consumer gear.That would be good!

Date: Fri, 26 Oct 2001 10:47:02 -0400  
From: "Chuck Rippel" <avsl@erols.com>  
Subject: Re: Prem-Rx: What makes a good receiver As well I remember! What counts is being able to discern what the receiver is hearing. F'instance, the Drake R8 family of receivers has an AM sensitivity of 0.8uv for 10db. However, it continues to be a benchmark flagship for affordable receivers generally available due to its excellent listenability and audio recovery.

**Audio recovery and detail and articulation within audio recovery are paramount. Combine extreme sensitivity with superb audio recovery in (AM mode, anyway) an you have an R390A with one of Robs SE-3's.**

> That's what John Thorpe and I spent a lot of time on when we laid the > keels for the boats. You, ladies and gentlemen, are your own best experts. > Listen to yourselves and learn. 73 John Wilson

=====  
== = 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, 26 Oct 2001 11:41:05 -0400  
From: "Chuck Rippel" <avsl@erols.com>  
Subject: Re: Prem-Rx: Receiver Testing I'll second that! I still have my HF-225 EUROPA I bought when John's hand guided Lowe. He did a talk on the line of Lowe receivers at the Winter SWL Fest in Philadelphia a few years back. The concept John/Lowe had made a lot of sense.

**I still have that radio bedside and it has been used every evening since the day I bought it.**

> > In a message dated 10/25/01 7:31:51 PM, Daiungoed@aol.com writes:

> > << BUT WHAT ARE THEY REALLY LISTENING TO??? I have several premium types, but > the one thats on most is a simple LOWE HF-235, sounds great to me, any comment?

> >

> > > Now that is a good sounding receiver..

> > The one I prefer to listen for program/music listening is the Drake R8B.

> > Critical ssb R-2174/URR/6790GM.

> > Les

=====  
== = 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, 26 Oct 2001 18:57:06 +0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Re: Prem-Rx: RA-6793A ...just what I expected ;-)

Just got home from work and more than a dozen replies in the mailbox. Thanks guys for the heads up. I'm looking forward to inspect the 6793 tomorrow. Maybe I'll have a new Racal radio in a few hours, even though - I told myself to save for a RX-340... ;-)

Have a nice weekend all !!!

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 52:27N - 09:42E  
<http://www.qsl.net/dl4obn>

-----  
Date: Fri, 26 Oct 2001 13:08:48 -0400  
From: "Chuck Rippel" <avsl@erols.com>  
Subject: Prem-Rx: Re: R-1051 repairs now available Les and I share a similar philosophy whose basically tennant is that no radio is the "radio of the day" 100% of the time. Different receivers have different strengths. The R1051 family illustrates this nicely.

Clearly its weaknesses are the lack of being a band cruiser and that AM was, at best an afterthought. However, for monitoring one SSB frequency such as in millitary monitoring, it is outstanding. In fact, the SSB audio recovery in my R1051H's exceed the performance of the Harris 590 right next to it. However, the Harris will accept one of Robs SE-3's thus AM on a 590 can be fairly respectable. Add to that, none of the 1051 variants cover LF giving the nod to the 590 for those circumstances.

My point is, for its particular utility, the R1051 is often overlooked. I remember reading somewhere that the "H" variant sold for about \$50,000 US per copy. Maybe it was in Fred Ostermans receiver book; can't remember. Also remember that the g'ment squandered our tax dollars on \$500 hammers, also.

All said, the 1051 is IMHO, a strong contender for a premium receiver when applied withing the bounds of its strengths.

> Later ones (-"D" or "E" up?) had diode ring mixers in the 6-pack, > also a buffer after the envelope detector to make AM reception > barely tolerable. Fun radio, cool noises, I traded mine off in 1994 > to pick up a '6830 Racal. I was astonished at the lack of synth > noise in the Racal vs. the unlettered 1051.

> Jim McVein

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-----  
---- Chuck Rippel

"Every day is different. Sometimes you are the bug, others you are the windshield."

Reply to: AVSL@erols.com -

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Date: Fri, 26 Oct 2001 14:13:32 EDT

From: Ka9p@aol.com

Subject: Re: Prem-Rx: Receiver testing I'll second the second for Lowe, I've almost worn out my HF150, and it follows me around the house like a lonesome pet. But I'll cast a no doubt minority view for a stock HF1000A as it's on constantly when in the shack, and I find it quite comfortable after finding the right speaker for bright but not harsh audio. And I like the 6790GM, but I like it better with an old DSP59 tacked on the back end.

I'd also second side by sides. If there was any enthusiasm for a midwestern get together count me in. Given the quality AND EASE OF DUPLICATION of digital recording, it might be a fun winter project to put together a blind CD of several receivers receiving the same or similar sigs in a few different modes and dup'em for the guys on the list, just to see what people think sounds the best, or good, or bad, without knowing where it came

From:) (and without having to get a bunch of radios in the same place.) Especially with a few ringers tossed in as controls.....

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End of premium-rx-digest V1 #161 \*\*\*\*\*  
Subject: premium-rx-digest V1 #162  
premium-rx-digest Wednesday, October 31 2001 Volume 01 : Number 162  
-----

----- Date: Fri, 26 Oct 2001 14:22:01 EDT

From: Llgpt@aol.com

Subject: Re: Prem-Rx: Receiver testing In a message dated 10/26/01 1:18:15 PM, Ka9p@aol.com writes:

<< I'll second the second for Lowe, I've almost worn out my HF150, and it follows me around the house like a lonesome pet. >>

I once had a HF-150 Europa, still wish I had it. Have had a couple of AORAR 7030's too, one was the plus with the full kiwa treatment. Good audio, too damn small!!!

Les Locklear

-----  
Date: Fri, 26 Oct 2001 12:24:24 -0700

From: "Greg Bailey" <gbailey@mail.sdsu.edu>

Subject: Prem-Rx: New Member- Ted Walker Gentlemen:

Another citizen of the Empire joins our List. Test Walker lives in Vauxhall, a suburb of London, England. His QTH enjoys a clear 360 degree horizon with a number of antennas (aerials) at an effective height of 100 Ft above ground level.

His favorite receiver is an RA1792 for which he has a full comprehensive technical manual. Presently, he is reading the manual and claims to be half way to the end?

Ted collects old BAs including a couple of SP-600s, HRO-60, Eddystone 1837/2 (marine radio), and an AR 88. There are a few others including some NRD and AORs, but the 1792 is the joy of his life at present.

Our newest member's radio spectrum interests are wide ranging and include computer control, data and broadcast transmissions, and a particular interest in tropical band Dx. This should light the interest of a number of our members including David Clarke, John Bryant, the Rippel youth, and Dr. Walt to name just a few..... :-)

Drop Ted an e-mail at: TedW10600@aol.com

Greg

-----  
Date: Fri, 26 Oct 2001 22:03:27 +0100

From: Vittorio De Tomasi <ik2czi@amsat.org>

Subject: Re: Prem-Rx: Receiver Testing michael j brown wrote:

>> John Reed is right. If testing is done correctly, the tests should be > repeatable and act as a guide to the type of performance one needs. Then the > subjective element enters in. I like straightforward to operate radios, so I > weigh ergonomics heavily. I don't mind tons of controls...if they are > dedicated to one function. Plus, I am a Bigger than normal human being (My > altitude exceeds 6' 4") So I dislike tiny chicklet keys which need a stylus > to operate. Audio response, the way the rig sounds when a monster station is > on the edge of the passband etc can be difficult to quantify exactly. The > sounds that come out as you tune through a strong station..... Relating > this to ultimate rejection and filter bandpass response is tricky..... what > one listens to to decide if the radio is superb or a dog varies. But the > numbers about ultimate rejection are easy to measure.... same with IMD and > IP3. Knowing the specs + actual use + user preferences = informed decision > and hours of fun. The real trick is finding a receiver reviewer who tests > properly and has exactly the same preferences as you. Hmmm.... that's

I think that, apart testing IMD at 10 or 100 kHz spacing and so on, a measurement of "in band" IMD (i.e. IMD measurements when tone spacing is such that IMD products fall well into the SSB filter bandpass) can give a reasonable idea of how a receiver "sounds". I saw recently some comparisons of this measurement among a good direct conversion receiver and some well-known rtx (and I also listened at them), and indeed this seems to me quite a severe check of the fidelity of a receiver. Unfortunately very little attention is often given to the distortion introduced by the very last stages of a receiver (and let's not forget the importance of selecting a proper speaker...)

> problematic! Here's a radical suggestion. How about a gathering of some > members of the list who have lots of different radios and let them test > drive each other's rigs. Then a followup report from each attendee on which > rigs were best to them and why. Then publish the results as a guide to > premium rx's. This, along with lab test results, is something to consider.

I have another suggestion: WWV sends a nice, stable, repeating voice announcement followed by a single constant tone that can be heard by many with very good S/N: what about recording the signal using different receivers and putting the results on the web stored with a lossless sound format? So everybody can experiment listening to the same signal but with different receivers and using different bandwidths. The sound files could also be dissected with several digital signal processing tools, in order to look for distortions, PLL whistles, and so on.

just my 0.02 euro....



-----  
Date: Sat, 27 Oct 2001 10:06:49 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: Prem-Rx: HRO-500 service?

Hi  
all--

As I gather is the case with most of our list members, I suffer from a fatal attraction for boatanchors in addition to my fascination with Premium Receivers. The newest denizen of Ritter's Rest Home for Radios is a National HRO-500, complete with LF-10 low-frequency preselector (but lacking the matching speaker--hint, hint?). It's in pretty good cosmetic and mechanical condition, consistent with being 35 years old and having been in use most of that time (much as was the case with yours truly 20 years ago!), but it's nearly nonfunctional. It powers up, but there's a strong and fixed hum on audio, it barely detects WWV, and what audio there is is also distorted.

Now, I figure a noble old character like this deserves to be treated the same way I hope my offspring will treat me when I'm in the same condition, so I'd like advice on sources of servicing for boatanchors in general, or perhaps a National specialist. Any pointers?

Thanks!

--howard n7exn

-----  
Date: Sat, 27 Oct 2001 10:46:45 -0500  
From: Bob Parnass <parnass@megsinet.net>  
Subject: Re: Prem-Rx: HRO-500 service? Howard,

I don't have an HRO-500, though I coveted one as a boy :-)

If the HRO-500 can be powered by an external 12 VDC source, try powering it externally instead of relying on the internal AC power supply.

Observe if the hum remains. It's a start.

--

=====  
===== Bob Parnass, AJ9S parnass@megsinet.net Linux  
user

-----  
Date: Sat, 27 Oct 2001 20:31:55 +0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Re: Prem-Rx: HRO-500 service? ...so you expect to be almost non-functional at 35 and hum upon power up. Make sure you leave a manual of yours around so your offspring can then service you properly... ;-) ;-) ;-)

Or maybe they should already start looking for a nursing home for folks with severe boatanchoritis, or a rest home for BA OPs ;-);-);-

**BOATANCHORS RULE !!!**

Howard L Ritter, Jr wrote:

> Now, I figure a noble old character like this deserves to be treated the > same way I hope my offspring will treat me when I'm in the same condition, > so I'd like advice on sources of servicing for boatanchors in general, or > perhaps a National specialist. Any pointers?



> > Thanks!

> > --howard n7exn - -- 73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943  
52:27N - 09:42E <http://www.qsl.net/dl4obn>

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Date: Sun, 28 Oct 2001 09:03:30 +0100

From: "John Wilson" <[johnwilson@freezone.co.uk](mailto:johnwilson@freezone.co.uk)>

Subject: Prem-Rx: National's last stand Howard, You are a lucky (well, maybe not) man picking up an HRO-500. I repaired many of these back in the 70s when they were used at a well known UK Government listening post and my strong advice to you is first of all replace every - and I mean every - one of the black disc capacitors used throughout the receiver. They were very prone to leakage and caused no end of trouble in the synthesiser, particularly in the synthesiser IF in the tin box behind the front panel. I also found that the audio was pretty much distorted even in new units and never got around to trying to improve it. But - I wish I had one myself just to remind me of National's last fling. Incidentally, I still have my 500 and LF-10 manuals so I can talk component designations if necessary Best of luck. John Wilson

----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769  
573047 Fax: 01769 574158

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Date: Sun, 28 Oct 2001 17:02:26 -0500

From: "Howard L Ritter, Jr" <[hritter@mindspring.com](mailto:hritter@mindspring.com)>

Subject: Prem-Rx: Re: HRO-500 Hello all--

Thanks to all who have replied to my inquiry about the HRO-500. With a slightly red face, I must relate that the old beast is working much better than I first thought. First, I quit using the makeshift AC supply cord that I had jury-rigged (original not included with purchase) and used a proper connector to power the radio from the 12 vdc supply for one of my transceivers. Then, and this is probably most important, I paid a little attention to the controls of this unfamiliar and (?) unique rig and its tuning system, not being able to RTFM as they say, since I don't \*have\* TFM. I discovered that it functions quite well, thank you, and that the hiss--not a hum, actually--on audio, present even with the AF gain turned completely down and NOT growing louder with increasing gain, apparently is the noise floor and is as loud as it is due to the inordinate sensitivity of the modern headphones I was using, since even at full CCW I still hear the signal through the noise. I think that if I were using less sensitive 'phones I wouldn't hear the hiss, since the volume would have to be so much higher to allow the signal to be heard.

In any case, I shall take Steve's and John's advice and clean with De-Ox-It and at least look into replacing the caps as John advised. Lucky my knee's not up to skiing this winter...

--howard n7exn

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Date: Sun, 28 Oct 2001 23:33:13 -0800

From: "refmon" <[monitor@referencevideo.com](mailto:monitor@referencevideo.com)>

Subject: Prem-Rx: premium-ish racks to house premium rx's

-----= \_NextPart\_000\_008F\_01C16008.EA254340

Hi premuloids,

I am just completing a new shack, more of an EMP-hardened chicken coup, = for my entire assemblage of receivers and accessories, currently = residing at the foot of the bed...it's just been too long...had to find = a new place. I had qty 5 racks lined up, but the arrangements fell = through.

Does anyone in the Portland/Seattle area have or know of a source for qty 5 racks of the following description:?

about 84" (7 feet/42-44 RU high), standard 19" wide, 30 inch depth (a couple can be 24" deep four post racks with EIA rail tapped holes at 10/32, front and rear = (rear adjustable)

good condition, color not critical...just not yellow anything from = gray to brown to black is fine

typical examples would be GKM, Stantron, Emcor...I tend to steer clear = of server racks, as they are not as flexible as instrumentation / = broadcast racks.

side panels and doors not required

I prefer pickup within the Seattle-Portland-Eugene corridor, although I = can go beyond for the right items.

any steorage appreciated by direct contact OFF list.

many thanks

John Collins \_\_\_\_\_

- -----= \_NextPart\_000\_008F\_01C16008.EA254340

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<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML><HEAD>
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content= 3D"MSHTML 5.00.2614.3500" name= 3DGENERATOR> <STYLE> </STYLE>
</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2>Hi
premuloids,</FONT></DIV> <DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial
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<DIV> &nbsp;</DIV></BODY></HTML>
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- -----= \_NextPart\_000\_008F\_01C16008.EA254340--

Date: Sun, 28 Oct 2001 17:40:54 -0800  
From: Walter Salmaniw <salmaniw@shaw.ca>

Subject: Prem-Rx: new e-mail address Please be advised of my new e-mail address, salmaniw@shaw.ca though the old salmaniw@home.com should continue to work for a while.....Walt Salmaniw From Victoria, BC, Canada.

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Date: Mon, 29 Oct 2001 11:36:44 -0800  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: premium-ish racks to house premium rx's Hi John ...

Electronic Dimensions in Tacoma - on Puyallup near the Amtrak station - has various racks that Glen (the owner) claims are for sale. I say 'claims' only because he uses them to hold his stock and may require some encouragement to actually sell one. Last time I was in there, he had several different kinds from quite basic to fairly fancy. Pretty good prices. Well worth a look. His hours are a bit erratic, so a phone call before heading out might be good.

Jan Skirrow

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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Date: Mon, 29 Oct 2001 11:42:53 -0800  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member- Al Tipsword (Racal PC control) Gentlemen:

Al Tipsword joins us from Camino, California. Al "drives" a 6790/GM and has been an amateur radio operator ( W6GER ) for a number of years. At present he is developing a Windows 98 control program for the receiver and would like some volunteers to beta test his efforts. He also needs to contact others who could offer assistance on waterfall displays and sound card programming using Visual Basic.

His software is currently operational in its Version 1.0 state with the following features: Virtual Front Panel with all programmable controls operational. Frequency and BFO Readout. LED display of modes and bandwidth readout. He reports the screen display looks exactly like the actual receiver front panel. Including: Frequency Scan Mode, Continuous Frequency Scan Mode, Selective Frequency Scan Mode, Timed Frequency Change Mode. and Record signal to .wav file.

With some assistance he hopes to add Spectrum Displays and Waterfall displays with the ability to click on a display point and have the receiver be set to that frequency.

Any good receiver man has a few BAs, and Al is no exception. These include: Three - R390A's; one R392; one R-388 and one R808. His present interest is Mechanical Teletype equipment and Hell Schreiber.

If you are into software driving a Racal.... give Al a blast at; Al Tipsword [atipsword@gotnet.net]

Greg

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Date: Mon, 29 Oct 2001 15:05:51 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: New Member- Al Tipsword (Racal PC control) hi All I wish Al would buy a RA6830 so I could test his creations. fc

> -----Original Message----- >

From: Greg Bailey [SMTP:gbailey@mail.sdsu.edu] > Sent: Monday, October 29, 2001 2:43 PM > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: New Member- Al Tipsword (Racal PC control)

> > Gentlemen:

> > Al Tipsword joins us from Camino, California. Al "drives" a 6790/GM and > has > been an amateur radio operator ( W6GER ) for a number of years. At > present > he is developing a Windows 98 control program for the receiver and would > like some volunteers to beta test his efforts. He also needs to contact > others who could offer assistance on waterfall displays and sound card > programming using Visual Basic.

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> > > If you are into software driving a Racal.... give Al a blast at; Al > Tipsword [atipsword@gotnet.net]

> > > Greg >

-----  
Date: Mon, 29 Oct 2001 13:11:03 -0700  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: [Fwd: Watkins Johnson]

- -----11ABB1AC6495FA7393FB67D5 charset= us-ascii

Can anyone help W3DI on getting his WJ aligned? Please contact him directly at nm3s@prodigy.net

- -----11ABB1AC6495FA7393FB67D5 Content-Type: message/rfc822

Content-Disposition: inline

Return-Path: <nm3s@prodigy.net> Received: from mail.amorosobaking.com (user-119ao22.biz.mindspring.com [66.149.96.66]) by supernova.dimensional.com (8.11.4/8.11.4) with ESMTP id f9TIEAJ10949 for <robert@sherweng.com>; Mon, 29 Oct 2001 11:14:11 -0700 (MST) Received: from danny (danny.amorosobaking.com [192.168.2.180]) by mail.amorosobaking.com (8.11.4/8.11.4) with SMTP id f9THuMl30927 for <robert@sherweng.com>; Mon, 29 Oct 2001 12:56:48 -0500 Message-ID: <000701c160a5\$13fe7c80\$b402a8c0@danny.amorosobaking.com> Reply-To: "DANIEL F AMOROSO" <nm3s@prodigy.net>  
From: "DANIEL F AMOROSO" <nm3s@prodigy.net> To: <robert@sherweng.com>  
Subject: Watkins Johnson  
Date: Mon, 29 Oct 2001 13:11:06 -0500  
MIME-Version: 1.0  
Content-Type: multipart/alternative; boundary="-----\_NextPart\_000\_0004\_01C1607B.2AF619E0"  
X-Priority: 3  
X-MSMail-Priority: Normal  
X-Mailer: Microsoft Outlook Express 4.72.3110.1  
X-MimeOLE: Produced By Microsoft MimeOLE V4.72.3110.3  
X-Mozilla-Status2: 00000000

- -----=\_NextPart\_000\_0004\_01C1607B.2AF619E0



Subject: Prem-Rx: RA6830 Preselector Hi All, I picked up a RA6830 dual channel preselector a while back but can't seem to find the software to control it unless the radio is configured as a D.F. unit. I resorted to a rotary switch control of the 13 filters. Gary Wingerd has provided me a couple versions of source code that show no control. I'm considering paying the software guy in the next cube to add the code for the preselector control. We would have to verify the source code will assemble then make the change. This is a very nice preselector and automatic control would be a very nice modification. We can still burn the 2732 proms in the radio so it should be a workable modification. My neighbor says he can do Z80 code no problem and he is real good otherwise. So if anybody is interested or has some code let me know as this would be a sweet set up. The RA6830 with a 4100515 base band module will be the hardware interface. There are two versions of code 6816 for IEEE488 interface and 6803 for RS232 that talk to the base band module. The control bits come out the DB25 audio connector so a harness would have to be built between both units. The preselector control can be configured for common of separate channel. I would be glad to share the source code if anybody out there wants to give it a try. The interface is 4 bits binary count 0001 to 1101 based on the operating frequency and the filter ranges. I have all the information to do the change. fc

-----  
Date: Wed, 31 Oct 2001 15:29:27 -0000  
From: "John Midwood" <john.midwood@7layers-uk.com>  
Subject: Prem-Rx: Rohde and Schwarz EK070 Dear All,

**I would like to know your honest opinion on the EK070 receiver. Is it worth it's weight in gold or should I stay clear!**

**Best Regards**

**John**

-----  
Date: Wed, 31 Oct 2001 09:14:53 -0800  
From: "Brian D. Comer" <bcomer@lsil.com>  
Subject: Re: Prem-Rx: RA6830 Preselector Hi Frank and All Frank and have been exchanging emails on this preselector as I bought one From Gary but did not have the control data for it. I am interested in helping get that code frank. I have now tested the preselector on my network analyzer and it looks real good. I would offer plots but I am not currently set up to download the data. If anyone really wants the plots I could get them from the analyzer at work.

**Regards Brian Comer**

**"Carcia, Frank A. HS" wrote:**

**> Hi All, > I picked up a RA6830 dual channel preselector a while back > but can't seem to find the software to control it unless the radio > is configured as a D.F. unit. I resorted to a rotary switch > control of the 13 filters. Gary Wingerd has provided > me a couple versions of source code that show no control. > I'm considering paying the software guy in the next cube > to add the code for the preselector control. We would have to > verify the source code will assemble then make the change. > This is a very nice preselector and automatic control would > be a very nice modification. We can still burn the 2732 > proms in the radio so it should be a workable modification. > My neighbor says he can do Z80 code no problem and he > is real good otherwise. So if anybody is interested or has > some code let me know as this would be a sweet set up. > The RA6830 with a 4100515 base band module will be > the hardware interface. There are two versions of code > 6816 for IEEE488 interface and 6803 for RS232 that > talk to the base band module. The control bits come out the > DB25 audio connector so a harness would have to be > built between both units. The preselector control can > be configured for common of separate channel. > I would be glad to share the source code if anybody out > there wants to give it a try. The interface is 4 bits binary > count 0001 to 1101**

based on the operating frequency > and the filter ranges. I have all the information to do > the change. fc

-----  
Date: Wed, 31 Oct 2001 21:04:42 +0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Prem-Rx: Premium Portable ??? Hi group !!!

The subject line says it all. While my trusty old Sony ICF-2001D/2010 does a good job when abroad, I've recently been wondering...

What do you guys recommend/use ???

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 52:27N - 09:42E  
<http://www.qsl.net/dl4obn>

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Date: Wed, 31 Oct 2001 12:58:06 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: RA6830 Preselector Hi All. Another option Brian was looking at was to control the preselector with a parallel port off a PC and use remote software to control the radio. This would allow the preselector to be used with any receiver. Either way an interesting piece of hardware. yep, Gary has a few more of these units kicking around. fc

> -----Original Message----- >

From: Brian D. Comer [SMTP:bcomer@lsil.com] > Sent: Wednesday, October 31, 2001 12:15 PM >  
To: Carcia, Frank A. HS > Cc: 'Premium-RX@kahuna.sdsu.edu' >

Subject: Re: Prem-Rx: RA6830 Preselector

> > Hi Frank and All > Frank and have been exchanging emails on this preselector as I bought > one > from Gary but did not have the control data for it. I am interested in > helping > get that code frank. I have now tested the preselector on my network > analyzer > and it looks real good. I would offer plots but I am not currently set up > to > download the data. If anyone really wants the plots I could get them from > the > analyzer at work.

> > Regards Brian Comer

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> > and the filter ranges. I have all the information to do  
> > the change. fc

-----  
Date: Wed, 31 Oct 2001 13:02:49 -0500 (EST)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: Premium Portable ??? Hi Thomas,

I think the Sony is still a nice box. For me though, it's either an HF-150 or a stylish hipbelt containing an R-392 and a couple of gelcells. Usually it's the HF-150.

73,

Steve

On Wed, 31 Oct 2001, Thomas Roth wrote:

> > Hi group !!!  
> > The subject line says it all. While my trusty old Sony ICF-2001D/2010 does a > good job when  
abroad, I've recently been wondering...  
> > What do you guys recommend/use ???  
> > 73 de Thomas, DL1CQ > FISTS #6402, CC #1036 > AGCW-DL #2943 > 52:27N - 09:42E  
> <http://www.qsl.net/dl4obn> >

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Date: Wed, 31 Oct 2001 18:31:12 +0100  
From: kdscholz@t-online.de (Klaus-Dieter Scholz)  
Subject: Prem-Rx: Hallo Freunde - ab sofort habe ich die folgende neue e-Mail-Adresse: Hello friends  
- I have the following new e-mail address: Hola amigos - desde hoy tengo la nueva dirección e-mail  
siguiente: Ciao amici - da oggi ho il nuovo indirizzo e-mail seguente: Olá amigos - desde hoje tenho o  
novo endereço e-mail seguinte:

kdscholz@t-online.de



Klaus-Dieter Scholz Postfach 10 17 05 D-99017 Erfurt Deutschland-Allemagne-Germany-Alemania-Jerman

fone/Telefon: + + 49-361-4212282 fax/Fax: + + 49-361-4212298 URL: <http://www.dxer.info>

-----  
Date: Wed, 31 Oct 2001 13:36:00 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Premium Portable ???

Hi

The R392 makes a nice chair and step stool. It is rain proof and you can put it behind a wheel in case the emergency brake is broken. It will also secure your boat to solid earth. As a radio it works pretty well if the tubes are fresh. The gears are fun to watch. fc

> -----Original Message----- >

From: Steve Stutman [SMTP:steve@xenon.clickadeal.com] > Sent: Wednesday, October 31, 2001 1:03 PM > To: Thomas Roth > Cc: premium-rx@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: Premium Portable ???

> > This message uses a character set that is not supported by the Internet > Service. To view the original message content, open the attached > message. If the text doesn't display correctly, save the attachment to > disk, and then open it using a viewer that can display the original > character set.  
<< File: message.txt >>

-----  
Date: Wed, 31 Oct 2001 14:15:58 EST  
From: DAVEI NBHAM@aol.com  
Subject: Re: Prem-Rx: Premium Portable ??? In a message dated 10/31/01 11:48:51 AM Central Standard Time, th.roth@knuut.de writes:

<< Hi group !!!

The subject line says it all. While my trusty old Sony ICF-2001D/2010 does a good job when abroad, I've recently been wondering...

What do you guys recommend/use ???

\*\*\*\*\*

\*\* Hi Thomas, Well, it depends on where I am going and how I am gonna get there. For a couple weeks at the beach I take the Racal RA6790GM although it does not do real well without a "proper" antenna. Space fot it in the Cadillac is no problem.

When I take the shiny big aluminum bird, I pack the Ten-Tec 1254 and a roll of hookup wire. Works rather well I think.

Regards, Dave

-----  
Date: Wed, 31 Oct 2001 14:24:25 -0500  
From: "Mark S. Holden" <msholden@mail2.nai.net>  
Subject: RE: Prem-Rx: Premium Portable ??? For camping I've been using a Racal 6790/gm, a standard STR-428, and a Raytheon 1251. (I only take two at a time.) :)

More rational radios for portable use would include the Lowe HF-150 and the Aor 7030+

Unfortunately, the Lowe is out of production, and very hard to find on the used market. The Europa version is supposed to be better, but I've been looking for one for about a year and have yet to find one I could buy.

But - since you're in Germany, maybe you can convince the outfit I found one at in the Netherlands to sell you one. If you'd like, email me off the list and I'll try fishing out a link when I get home.

Regards,

Mark

- -----Original Message-----

From: Thomas Roth [SMTP:th.roth@knuut.de] Sent: Wednesday, October 31, 2001 2:05 PM To: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: Premium Portable ???

Hi group !!!

The subject line says it all. While my trusty old Sony ICF-2001D/2010 does a good job when abroad, I've recently been wondering...

What do you guys recommend/use ???

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 52:27N - 09:42E  
<http://www.qsl.net/dl4obn>

-----  
Date: Wed, 31 Oct 2001 14:47:55 -0500

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Premium Portable ??? hi All, That Lowe is a nice little radio. A friend had one a few weeks back at a local flea market. I like the RA6830 as it is half the size of the 6790 and 10 years newer. It also needs a few feet of wire up in a tree to really perform. I take that one to the beach with me. fc

> -----Original Message----- >

From: Mark S. Holden [SMTP:msholden@mail2.nai.net] > Sent: Wednesday, October 31, 2001 2:24 PM > To: 'th.roth@knuut.de'; premium-rx@kahuna.sdsu.edu >

Subject: RE: Prem-Rx: Premium Portable ???

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> > Regards,

> > Mark

> > -----Original Message----- >

From: Thomas Roth [SMTP:th.roth@knuut.de] > Sent: Wednesday, October 31, 2001 2:05 PM > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Premium Portable ???

> > > Hi group !!!

> > The subject line says it all. While my trusty old Sony ICF-2001D/2010 does > a > good job when abroad, I've recently been wondering...

> > What do you guys recommend/use ???

> > 73 de Thomas, DL1CQ > FISTS #6402, CC #1036 > AGCW-DL #2943 > 52:27N - 09:42E > <http://www.qsl.net/dl4obn>

-----  
End of premium-rx-digest V1 #162 \*\*\*\*\*

Subject: premium-rx-digest V1 #163  
premium-rx-digest Friday, November 9 2001 Volume 01 : Number 163  
-----

----- Date: Wed, 31 Oct 2001 14:52:55 EST

From: CLeyson@aol.com

Subject: Prem-Rx: Re: Trio/kenwood R1000 on ebay. Portable ? - --  
part1\_147.3ddd508.2911b097\_boundary

Trio/Kenwood R1000 RX on ebay.co.uk. Item #1289115747. It's almost portable !

Chris

Chris Leyson

--part1\_147.3ddd508.2911b097\_boundary

< HTML > < FONT FACE= arial, helvetica > < FONT SIZE= 2 > Trio/Kenwood R1000 RX on ebay.co.uk. Item #1289115747. < BR > It's almost portable ! < BR > < BR > Chris < /FONT > < FONT COLOR= "#000000" SIZE= 3 FAMILY= "SANSSERIF" FACE= "Arial" LANG= "0" > < I > < BR > < BR > < /FONT > < FONT COLOR= "#000000" SIZE= 2 FAMILY= "SANSSERIF" FACE= "Arial" LANG= "0" > < BR > < /I > < BR > < BR > < BR > Chris Leyson < /FONT > < /HTML >

--part1\_147.3ddd508.2911b097\_boundary--

-----  
Date: Wed, 31 Oct 2001 13:12:38 -0800

From: jmcvein@teleport.com

Subject: Re: Prem-Rx: Premium Portable ???

From: <jmcvein@teleport.com> To: th.roth@knuut.de

Subject: Re: Prem-Rx: Premium Portable ??? Date sent: Wed, 31 Oct 2001 10:51:23 -0800

From: Thomas Roth <th.roth@knuut.de> Send reply to: th.roth@knuut.de To: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: Premium Portable ??? Date sent: Wed, 31 Oct 2001 21:04:42 +0200

> > Hi group !!!

> > The subject line says it all. While my trusty old Sony > ICF-2001D/2010 does a good job when abroad, I've recently been > wondering...

> > What do you guys recommend/use ???

> > 73 de Thomas, DL1CQ > FISTS #6402, CC #1036 > AGCW-DL #2943 > 52:27N - 09:42E  
> <http://www.qsl.net/dl4obn>

I have had 2 Sony SW-100's, traveled the world with them (one was stolen out of a bag checked at LAX!). Buy an "international" model that comes with a 100-250V supply. Throw away the active ant, and use the antenna reel. I probably listen more to the Sony than the primo rx's simply because of portability.

Jim McVein

-----  
Date: Wed, 31 Oct 2001 13:33:51 -0800

From: "Brian D. Comer" <bcomer@lsil.com>

Subject: Prem-Rx: Boatanchors Hi All Can anyone tell me if there is a group like this one that covers the RA117. I need to find where I might obtain the cables that interconnect the SSB adapter etc.

Regards Brian Comer

-----  
Date: Wed, 31 Oct 2001 14:39:28 -0800

From: Walter Salmaniw <salmaniw@shaw.ca>

Subject: Re: Prem-Rx: Premium Portable ??? - --Boundary\_(ID\_H99gN17RFS8/ugIDZzAwzg)  
charset=iso-8859-1; format=flowed

At 09:04 PM 10/31/2001 + 0200, Thomas Roth wrote:

> Hi group !!!

> > The subject line says it all. While my trusty old Sony ICF-2001D/2010 does= a > good job when abroad, I= B4ve recently been wondering...

> > What do you guys recommend/use ???

Thomas, I bought a 7030+ specifically for this purpose. About the same overall size, except for the transformer.....Walt.=

- --Boundary\_(ID\_H99gN17RFS8/ugIDZzAwzg) charset= iso-8859-1

<html> <font size= 3D3> At 09:04 PM 10/31/2001 + 0200, Thomas Roth wrote:<br><br>  
<blockquote type= 3Dcite class= 3Dcite cite> Hi group !!!<br><br> The subject line says it all.  
While my trusty old Sony ICF-2001D/2010 does a<br> good job when abroad, I= B4ve recently been  
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bought a 7030+ specifically for this purpose.&nbsp; About the same overall size, except for the  
transformer.....Walt.</font> </html>

- --Boundary\_(ID\_H99gN17RFS8/ugIDZzAwzg)--

-----  
Date: Wed, 31 Oct 2001 18:55:10 -0800

From: Walter Salmaniw <salmaniw@shaw.ca>

Subject: Re: Prem-Rx: premium-ish racks to house premium rx's - -

Boundary\_(ID\_20aNstT8eYMCnv+BeB1R5g) charset=us-ascii; format=flowed

At 12:16 AM 10/31/2001 -0800, Spencer Bahner wrote: > Beware! Glen can take a lot of prodding just to set a price on any of the > items he has in stock. It can take the better part of an afternoon just to > spend a couple hundred bucks with him! That said, surplus in the pacific > northwest is pretty slim pickin's and Glen is about it unless you frequent > Fort Lewis.

Yep, I can second that!!! On a couple of occasions, I rushed in with my son in tow, and 3 or 4 hours later, we were on our way ;).....Back to trick or treating, a big thing in these parts!.....Walt.

--Boundary\_(ID\_20aNsTT8eYMCnv+ BeB1R5g) charset= us-ascii

<html> <font size= 3> At 12:16 AM 10/31/2001 -0800, Spencer Bahner wrote:<br> <blockquote type= cite class= cite cite> Beware! Glen can take a lot of prodding just to set a price on any of the<br> items he has in stock. It can take the better part of an afternoon just to<br> spend a couple hundred bucks with him! That said, surplus in the pacific<br> northwest is pretty slim pickin's and Glen is about it unless you frequent<br> Fort Lewis.</blockquote> <br> Yep, I can second that!!!&nbsp; On a couple of occasions, I rushed in with my son in tow, and 3 or 4 hours later, we were on our way ;).....Back to trick or treating, a big thing in these parts!.....Walt.</font> </html>

--Boundary\_(ID\_20aNsTT8eYMCnv+ BeB1R5g)--

-----  
Date: Wed, 31 Oct 2001 23:04:04 -0500  
From: Ken Maltz <Klezmer@optonline.net>  
Subject: Re: Prem-Rx: premium-ish racks to house premium rx's

--Boundary\_(ID\_0sKaxA9dLL4RXfbfgT4zJw) charset= iso-8859-1

To All-

May I suggest that you check out equipment racks in professional music shops? Companies such as Raxess, Mid-Atlantic Products and others make a wide variety of 19" racks and enclosures; from basic black to maple trimmed models from 2 to 24+ rack spaces in height.

I would be happy to supply and list of dealers and/or websites if anyone desires.

73s, Ken Maltz ----- Original Message -----

From: Walter Salmaniw To: Spencer Bahner Cc: Premium-Rx@kahuna.sdsu.edu Sent: Wednesday, October 31, 2001 9:55 PM

Subject: Re: Prem-Rx: premium-ish racks to house premium rx's

At 12:16 AM 10/31/2001 -0800, Spencer Bahner wrote:

Beware! Glen can take a lot of prodding just to set a price on any of the items he has in stock. It can take the better part of an afternoon just to spend a couple hundred bucks with him! That said, surplus in the pacific northwest is pretty slim pickin's and Glen is about it unless you frequent Fort Lewis.

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--Boundary\_(ID\_0sKaxA9dLL4RXfbfgT4zJw) charset= iso-8859-1

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content= "MSHTML 5.50.4807.2300" name= GENERATOR> <STYLE></STYLE> </HEAD>
<BODY bgColor= #ffffff> <DIV><FONT face= Arial size= 2> To All-</FONT></DIV>
<DIV><FONT face= Arial size= 2></FONT> &nbsp;</DIV> <DIV><FONT face= Arial
size= 2> May I suggest that you check out equipment racks in professional music shops? Companies
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<DIV><FONT face= Arial size= 2> 73s,</FONT></DIV> <DIV><FONT face= Arial
```

size= 2> Ken Maltz</FONT></DIV> < BLOCKQUOTE style= "PADDING-RIGHT: 0px; PADDING-LEFT: 5px; MARGIN-LEFT: 5px; BORDER-LEFT: #000000 2px solid; MARGIN-RIGHT: 0px"> < DIV style= "FONT: 10pt arial">----- Original Message ----- </DIV> < DIV style= "BACKGROUND: #e4e4e4; FONT: 10pt arial; font-color: black"> < B>

From:</B> < A title= salmaniw@shaw.ca href= "mailto:salmaniw@shaw.ca"> Walter Salmaniw</A> </DIV> < DIV style= "FONT: 10pt arial"> < B> To:</B> < A title= spencer12345@email.msn.com href= "mailto:spencer12345@email.msn.com"> Spencer Bahner</A> </DIV> < DIV style= "FONT: 10pt arial"> < B> Cc:</B> < A title= Premium-Rx@kahuna.sdsu.edu href= "mailto:Premium-Rx@kahuna.sdsu.edu"> Premium-Rx@kahuna.sdsu.edu</A> </DIV> < DIV style= "FONT: 10pt arial"> < B> Sent:</B> Wednesday, October 31, 2001 9:55 PM</DIV> < DIV style= "FONT: 10pt arial"> < B>

Subject:</B> Re: Prem-Rx: premium-ish racks to house premium rx's</DIV>  
< DIV> < BR> </DIV> < FONT size= 3> At 12:16 AM 10/31/2001 -0800, Spencer Bahner wrote:< BR> < BLOCKQUOTE class= cite cite type= "cite"> Beware! Glen can take a lot of prodding just to set a price on any of the< BR> items he has in stock. It can take the better part of an afternoon just to< BR> spend a couple hundred bucks with him! That said, surplus in the pacific< BR> northwest is pretty slim pickin's and Glen is about it unless you frequent< BR> Fort Lewis.</BLOCKQUOTE> < BR> Yep, I can second that!!!&nbsp; On a couple of occasions, I rushed in with my son in tow, and 3 or 4 hours later, we were on our way ;).....Back to trick or treating, a big thing in these parts!.....Walt.</FONT> </BLOCKQUOTE> </BODY> </HTML>

--Boundary\_(ID\_0sKaxA9dLL4RXfbfgT4zJw)--

-----  
Date: Wed, 31 Oct 2001 20:46:56 -0800  
From: "Calvinf15" <calvinf15@earthlink.net>  
Subject: Prem-Rx: Ailtech Type 75 Noise Meter Hi Folks,

Just picked up a bargain basement Ailtech Type 75 Precision Noise Figure Indicator (read: boatanchor). Does anyone have a basic idea of how to operate this unit? I have a 28 volt noise source, but I cannot figure out the "CAL" setting. I understand that it requires a 30 MHz IF feed, but how do I best cal the instrument? Is it based on the Y-factor method? Thanks for any help

Adam

-----  
Date: Thu, 1 Nov 2001 08:34:45 +0200  
From: Thomas Roth <th.roth@knuut.de>  
Subject: Re: Prem-Rx: Premium Portable ??? Hi again all,

and thanks a lot for all the suggestions. So I didn't miss out on some special, portable Prem-RX then. Guess I'll stick to my ICF2001D/2010 then ;-)

BTW, since last night I got every mail via the reflector twice. Not just the ones that were sent to the list and cc'ed to me. Anyone else noticed this...???

73 de Thomas, DL1CQ FISTS #6402, CC #1036 AGCW-DL #2943 52:27N - 09:42E  
<http://www.qsl.net/dl4obn>

-----  
Date: Wed, 31 Oct 2001 23:38:01 -0800  
From: "France Antelme" <fantelme@ncal.verio.com>  
Subject: Re: Prem-Rx: Rohde and Schwarz EK070 John,

The EK070 is a beautiful receiver and it is certainly a performer.

- -France- - ---- Original Message ----

From: "John Midwood" <john.midwood@7layers-uk.com> To: <Premium-RX@kahuna.sdsu.edu>  
Sent: Wednesday, October 31, 2001 7:29 AM

Subject: Prem-Rx: Rohde and Schwarz EK070

> Dear All,

> > I would like to know your honest opinion on the EK070 receiver. Is it worth > it's weight in gold  
or should I stay clear!

> > Best Regards

> > John

> >

-----  
Date: Thu, 01 Nov 2001 07:15:02 -0600

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>

Subject: Re: Prem-Rx: premium-ish racks to house premium rx's I regularly see racks at the local  
scrap metal dealer. Many of them housed computer mainframes, older servers, backup systmes... Thus  
the cosmetics are great because they were pampered. I've even found some new on the pallet with  
full EMI /RFI gaskets on the doors. The price around here is usually double the per pound scrap rate,  
which is still peanuts (a full EMI /RFI rack cost me \$15 - steel is about \$0.03 per pound around here).

Terry O'

-----  
Date: Thu, 1 Nov 2001 16:52:36 EST

From: MW1DUJ@aol.com

Subject: Prem-Rx: RACAL RA1794

Hi

Does anyone know what a RACAL RA1794 is? Any offers? Dave

-----  
Date: Thu, 01 Nov 2001 14:40:41 -0800

From: jan@skirrow.org

Subject: Re: Prem-Rx: Boatanchors At 01:33 PM 10/31/01 -0800, Brian D. Comer wrote: >Hi All >Can  
anyone tell me if there is a group like this one that covers the >RA117. I need to find where I might  
obtain the cables that interconnect >the SSB adapter etc.

>> Regards Brian Comer

Hi Brian ...

The Boatanchors mail list covers all tube radios and it is a pretty knowledgeable bunch. Unfortunately  
it is also a subscription list (modest fee). You should be able to get info from  
listown@jackatak.theporch.com - if not give me an off-list email and I'll dig out more complete info  
for you.

There are other lists that might also be helpful, but I usually try BA first as it almost always pans out.

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Thu, 1 Nov 2001 17:02:07 -0600  
From: "George Wagner" <geewagons@worldnet.att.net>  
Subject: RE: Prem-Rx: RACAL RA1794 well.....my copy of Jane's Military Communications '90-'91 says it's a 2-512 MHz receiver in a military ruggedized package about 10" x 10" x 18". It certainly doesn't look anything like the Racal 1794 that is currently up for auction on eBay (if that's what you're referring to)

George

> -----Original Message----- >

From: owner-premium-rx@engineering.sdsu.edu > [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of > MW1DUJ@aol.com > Sent: Thursday, November 01, 2001 3:53 PM > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: RACAL RA1794

> > >

Hi

> Does anyone know what a RACAL RA1794 is? Any offers? Dave >

-----  
Date: Thu, 01 Nov 2001 18:05:58 -0800  
From: Brian Comer <bcomer@lsil.com>  
Subject: Prem-Rx: BoatAnchors Hi All I thank you for all you suggestions I am looking into these.

Regards Brian Comer

-----  
Date: Thu, 1 Nov 2001 21:53:12 EST  
From: Daiungoed@aol.com  
Subject: Re: Prem-Rx: BoatAnchors

Hi

Further to the posting about the R&S EK07, you could do much worse than read Short Wave Magazine, March 2001 issue, Dave

-----  
Date: Fri, 02 Nov 2001 06:57:22 -0800  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Re: Prem-Rx: RACAL RA1794 - --Boundary\_(ID\_9JSNvF/DnUi4MuMjo0uuCw) charset=us-ascii; format=flowed

At 04:52 PM 11/1/2001 -0500, MW1DUJ@aol.com wrote: >

Hi

> Does anyone know what a RACAL RA1794 is? Any offers? Dave

That was a RA-1792, not a 1794.....Walt.

- --Boundary\_(ID\_9JSNvF/DnUi4MuMjo0uuCw) charset= us-ascii







likely that an Eddystone collector will insist on buying it from you, leaving lots of space for something more sensible like a 392 or a small purchase that might go unnoticed like a WJ or a small Rascal.

I use a National RF840. Its old and does not look to clever (early technology LCD), did not stop the Thailand customs officers trying to take it from me a few years ago. ]

Form on the plane Are you bringing in any forged currency . . . . duh, might be Do you have any recreational use drugs . . . ???? Are you carrying a gun . . . .I have seen a lethal weapon film on the plane, does that count

Douyou have a radio . . Yes, if only I had said no it may have saved 3 hours.

Actually taking a clever rx abroad is a problem. I was in Thailand, working and this involved taking a reasonably straightforward com's RX in the country with a government letter, I did not take it in, somebody else did, on another day. In ok, bribe of £200 to get it out again, and then the filter board was missing. Do not take anything anywhere you might not want to loose. A £10 cheapo is great to hear the sports results and the news .

Joanna

- ----- Original Message -----

From: Carcia, Frank A. HS <francis.carcia@hs.utc.com> To: 'Steve Stutman' <steve@xenon.clickadeal.com> ; Thomas Roth <th.roth@knuut.de> Cc: <premium-rx@kahuna.sdsu.edu> Sent: 31 October 2001 18:36

Subject: RE: Prem-Rx: Premium Portable ???

>

Hi

> The R392 makes a nice chair and step stool. It is rain proof > and you can put it behind a wheel in case the emergency > brake is broken. It will also secure your boat to solid earth. > As a radio it works pretty well if the tubes are fresh. > The gears are fun to watch. fc

> > > -----Original Message-----

> >

From: Steve Stutman [SMTP:steve@xenon.clickadeal.com]

> > Sent: Wednesday, October 31, 2001 1:03 PM

> > To: Thomas Roth

> > Cc: premium-rx@kahuna.sdsu.edu

> >

Subject: Re: Prem-Rx: Premium Portable ???

> > > > This message uses a character set that is not supported by the Internet

> > Service. To view the original message content, open the attached

> > message. If the text doesn't display correctly, save the attachment to

> > disk, and then open it using a viewer that can display the original

> > character set. << File: message.txt >>

-----

Date: Sat, 3 Nov 2001 12:29:49 -0500 (EST)

From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: Premium Portable ???

Hi

I thought this list was politically correct. I shall have to bring this to the attention of the powers at SDSU.

Joanna, next time your are in or near Boston, dinner is on me.

73,

Steve

On Sat, 3 Nov 2001, j.tansley wrote:

> Guys I have found that the Eddystone 880 is excellent with many of the > properties below of the > 390. The really great advantage of this set is that > (a) it is of sufficient weight to tilt the 4WD at the right angle to see > those ski mountains in the distance. The linear gear train is fun to watch > and will keep children amused for hours and if you use it to stop the car > sliding down the ice on the side of a hill either as a car anchor or as a > wheel stop, it is quite likely that an Eddystone collector will insist on > buying it from you, leaving lots of space for something more sensible like a > 392 or a small purchase that might go unnoticed like a WJ or a small Racal.

> > > I use a National RF840. Its old and does not look to clever (early > technology LCD), did not stop the Thailand customs officers trying to take > it from me a few years ago. ]

> > Form on the plane > Are you bringing in any forged currency . . . . duh, might be > Do you have any recreational use drugs . . . ??? > Are you carrying a gun . . . .I have seen a lethal weapon film on the > plane, does that count

> > Douyou have a radio . . Yes, if only I had said no it may have saved 3 > hours.

> > Actually taking a clever rx abroad is a problem. I was in Thailand, working > and this involved taking a reasonably straightforward com's RX in the > country with a government letter, I did not take it in, somebody else did, > on another day. In ok, bribe of £200 to get it out again, and then the > filter board was missing. Do not take anything anywhere you might not want > to loose. A £10 cheapo is great to hear the sports results and the news .

> > > Joanna

> > > > ----- Original Message ----- >

From: Carcia, Frank A. HS <francis.carcia@hs.utc.com

> > To: 'Steve Stutman' <steve@xenon.clickadeal.com> ; Thomas Roth > <th.roth@knuut.de

> > Cc: <premium-rx@kahuna.sdsu.edu

> > Sent: 31 October 2001 18:36 >

Subject: RE: Prem-Rx: Premium Portable ???

> > > >

Hi

> > The R392 makes a nice chair and step stool. It is rain proof

> > and you can put it behind a wheel in case the emergency

> > brake is broken. It will also secure your boat to solid earth.

> > As a radio it works pretty well if the tubes are fresh.

> > The gears are fun to watch. fc

> > > > > -----Original Message-----

> > >

From: Steve Stutman [SMTP:steve@xenon.clickadeal.com]

> > > Sent: Wednesday, October 31, 2001 1:03 PM

> > > To: Thomas Roth

> > > Cc: premium-rx@kahuna.sdsu.edu

> > >

Subject: Re: Prem-Rx: Premium Portable ???

> > > > > This message uses a character set that is not supported by the Internet

> > > Service. To view the original message content, open the attached

> > > message. If the text doesn't display correctly, save the attachment to

> > > disk, and then open it using a viewer that can display the original

> > > character set. << File: message.txt >

> >

-----  
Date: Sat, 3 Nov 2001 18:13:28 -0000

From: "Tracey Gardner" <tracey.gardner@ntlworld.com>

Subject: Prem-Rx: RACAL RA1794 Hello Jo

If you're interested in a couple of RA1794s and a vehicle to house them in have a look at the following page!

<http://www.pandmward.swinternet.co.uk/Pinzsale.htm>

How about buying one and splitting it between us! :-)

Tracey

tracey.gardner@ntlworld.com Lincolnshire U.K.

-----  
Date: Sat, 3 Nov 2001 18:04:20 EST

From: Daiungoed@aol.com

Subject: Prem-Rx: RA1794

Hi

Many thanks to all those who replied to my query about the 1794, it was advertised on EBAY UK, and it looked for all the world like a RA1792, but was being sold as a 1794. It was due to an error on the part of the seller, and has now been amended, ( and sold) Many thanks, Dave

-----  
Date: Mon, 5 Nov 2001 08:33:06 +0400

From: "LEBON Jean Philippe" <JEAN-PHILIPPE.LEBON@wanadoo.fr>

Subject: Prem-Rx: hagenuk 1001 a + ra 1792 displays

- -----=\_NextPart\_000\_0031\_01C165D4.7E3A32E0

is anybody aware of any pc remote control software for a hagenuk 1001 a = ? where could i purchase 2 replacement displays for my ra 1792 ? i fail to find a wire remote contoller for a jrc 515 : jrc ncm 515 , out = of production now . thank you in advance . jean philippe .

- -----= \_NextPart\_000\_0031\_01C165D4.7E3A32E0

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content= 3D"MSHTML 5.00.2614.3500" name= 3DGENERATOR> <STYLE></STYLE>
</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2> is anybody
aware of any pc remote = control software for a hagenuk 1001 a ? </FONT></DIV>
<DIV><FONT face= 3DArial size= 3D2> where could i purchase 2 replacement = displays for my
ra 1792 ?</FONT></DIV> <DIV><FONT face= 3DArial size= 3D2> i fail to find a wire remote
contoller = for a jrc 515 : jrc ncm 515 , out of production now .</FONT></DIV> <DIV><FONT
face= 3DArial size= 3D2> thank you in advance . jean philippe
.</FONT></DIV></BODY></HTML>
```

- -----= \_NextPart\_000\_0031\_01C165D4.7E3A32E0--

Date: Mon, 5 Nov 2001 12:52:13 -0500

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Warning Off topic: Wallace has encounter! What was her dynamic range and noise figure? I bet her filters have real ultimate rejection. I hope he enjoys the vector until the watch dog timer resets him.

> -----Original Message----- >

From: Greg Bailey [SMTP:gbailey@mail.sdsu.edu] > Sent: Friday, November 02, 2001 5:05 PM >  
To: Premium-Rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Warning Off topic: Wallace has encounter!

> > Gentlemen:

> > This is off the List topic, but it does involve one of most esteemed > members-

> > I wish to report that Ben Wallace, a charter member of our List, owner of > perhaps the largest  
pristine BA collections in the southwest (200+), a > long > time contributor to this astute body, and  
sometimes called "moneybags" due > to his long time affiliation with Qualcomm and its stock options  
. . . . . > . > experienced a near death encounter last Monday.

> > Last Monday Qualcomm's CEO, Dr. Erwin Jacobs, demonstrated the use of the > Globalstar  
satellite system and its application to the transmission of > live > video and data from an aircraft to a  
ground station. The demonstration, > which included the use of Dr. Jacob's Challenger (Canadian)  
business jet, > was well rehearsed prior to the live broadcast.

> > It was during one of rehearsals at San Diego's Lindbergh Field that Ben > was > walking from  
the jet's hanger to the Executive terminal building that he > experienced his encounter. There he was,  
stumbling over his own feet > (normal operating procedure) when he happened to look up at a fellow  
> passenger approaching in the opposite direction. Immediately, he > recognized the person as Pam  
Anderson, aka Ms. Bay Watch, and video > queen(?). How he identified her so quickly is still  
conjecture, but there > was no question in Ben's eye.

> > Well, the rest, as they say, is history.

> > Ben's eyesight has not been the same since the encounter. His speech > pattern, typically  
characterized in the past as Midwestern English, is now > slurred and tends to sputter with  
projections of saliva. Lastly, and this > is the part I most hesitate to report, he continues to cry and

mindlessly > verbalize the words, "they resonate". At this point I have not been able > to get Ben to tell me what the word "they" represents.

> > Send your e-mails of support to our fallen member: bwallace@sd.cts.com

> > Thanks Greg

> > > > P.S. Gotcha Ben! So tell us, did you happen to get her autograph, a > snap > shot . . or two?

> >

-----  
Date: Mon, 5 Nov 2001 20:32:11 -0000  
From: "j.tansley" <j.tansley@btinternet.com>  
Subject: Re: Prem-Rx: Premium Portable ??? Steve,

many thanks I will bring an SP600 with me so it can see its heritage and act as talking point for the customs officials.

Jo

- ----- Original Message -----

From: Steve Stutman <steve@xenon.clickadeal.com> To: j.tansley <j.tansley@btinternet.com> Cc: <premium-rx@kahuna.sdsu.edu> Sent: 03 November 2001 17:29

Subject: Re: Prem-Rx: Premium Portable ???

Hi

I thought this list was politically correct. I shall have to bring this to the attention of the powers at SDSU.

Joanna, next time your are in or near Boston, dinner is on me.

73,

Steve

On Sat, 3 Nov 2001, j.tansley wrote:

> Guys I have found that the Eddystone 880 is excellent with many of the > properties below of the 390. The really great advantage of this set is that > (a) it is of sufficient weight to tilt the 4WD at the right angle to see > those ski mountains in the distance. The linear gear train is fun to watch > and will keep children amused for hours and if you use it to stop the car > sliding down the ice on the side of a hill either as a car anchor or as a > wheel stop, it is quite likely that an Eddystone collector will insist on > buying it from you, leaving lots of space for something more sensible like a > 392 or a small purchase that might go unnoticed like a WJ or a small Racal.

> > > I use a National RF840. Its old and does not look to clever (early > technology LCD), did not stop the Thailand customs officers trying to take > it from me a few years ago. ]

> > Form on the plane > Are you bringing in any forged currency . . . . duh, might be > Do you have any recreational use drugs . . . ??? > Are you carrying a gun . . . .I have seen a lethal weapon film on the > plane, does that count

> > Douyou have a radio . . Yes, if only I had said no it may have saved 3 > hours.

> > Actually taking a clever rx abroad is a problem. I was in Thailand, working > and this involved taking a reasonably straightforward com's RX in the > country with a government letter, I did not take it in, somebody else did, > on another day. In ok, bribe of £200 to get it out again, and then the >

filter board was missing. Do not take anything anywhere you might not want > to loose. A £10 cheapo is great to hear the sports results and the news .

> > > Joanna

> > > > ----- Original Message ----- >

From: Carcia, Frank A. HS <francis.carcia@hs.utc.com

> > To: 'Steve Stutman' <steve@xenon.clickadeal.com> ; Thomas Roth > <th.roth@knuut.de

> > Cc: <premium-rx@kahuna.sdsu.edu

> > Sent: 31 October 2001 18:36 >

Subject: RE: Prem-Rx: Premium Portable ???

> > > >

Hi

> > The R392 makes a nice chair and step stool. It is rain proof

> > and you can put it behind a wheel in case the emergency

> > brake is broken. It will also secure your boat to solid earth.

> > As a radio it works pretty well if the tubes are fresh.

> > The gears are fun to watch. fc

> > > > -----Original Message-----

> > >

From: Steve Stutman [SMTP:steve@xenon.clickadeal.com]

> > > Sent: Wednesday, October 31, 2001 1:03 PM

> > > To: Thomas Roth

> > > Cc: premium-rx@kahuna.sdsu.edu

> > >

Subject: Re: Prem-Rx: Premium Portable ???

> > > > > This message uses a character set that is not supported by the Internet

> > > Service. To view the original message content, open the attached

> > > message. If the text doesn't display correctly, save the attachment to

> > > disk, and then open it using a viewer that can display the original

> > > character set. << File: message.txt >

> >

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Date: Fri, 09 Nov 2001 18:51:38 -0500

From: michael j brown <piggin@mindspring.com>

Subject: Prem-Rx: Mackay Marine 3031A VS R8500 I looked in vain for resources on the web about the HF performance of the R8500 from I com.I thought you might enjoy hearing my impressions as I compare it to my favorite rig,the 3031A.I figured I had HF covered.My 3031A seemed invincible on ssb(as long as its USB).I ordered an R8500 to treat myself on the occasion of my 40th birthday.I figured it would be fun at vhf and above, but I doubted it would be that great on HF.Now, its



important to keep in mind my overweening affection for the Mackays I own. To me, they ruled. I imagine my mixture of delight, horror and consternation when I first tuned the 8500 on HF. "wow, conditions are great I thought. Time to fire up the 3031A. Oh-Oh." Man, the 8500 really performs on HF, and LF. I was suprised since the dynamic range isnt supposed to be that great. I was delighted and disqusted as signal after signal sounded better on the 8500. Even better and worse....signals not copied on the mackay were easy on the 8500. Oh no....I t was a bummer seeing the 3031A lose like this....and a delight at the performance of the new radio. Well, the 3031A can survive a paintshaker ride. And its really nice to drive too. Its also user servicable without a 25 power binocular microscope. I m going to keep and treasure my 3031As. But this new I com...WOW. If anyone else on the list has an 8500 I would like to hear From you! My final thought....this new rig is scary in its level of performance. And no DSP...I wonder how much better the next paradigm shift will look as really powerful DSP processors and archeitecture mature. It boggles the imagination.

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**End of premium-rx-digest V1 #163 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #164**  
**premium-rx-digest Sunday, November 18 2001 Volume 01 : Number 164**  
-----

----- Date: Sun, 11 Nov 2001 13:01:41 -0700  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: Prem-Rx: RA 6830 Parts If anyone is looking for RA6830 parts, TSS is selling a number of blank(!) and populated boards for that model on Ebay. A search for "racal" will turn them up.

**Shaun**

- ----- Shaun Merrigan smerriga@compusmart.ab.ca  
-----

Date: Tue, 13 Nov 2001 08:50:43 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: RA 6830 Parts Hi All, The blank boards are not for the 6830. I asked about prices during the this past summer and purchased a couple cases but the modules were out of sight. There are a few on epay right now so that may drive the prices down. fc

> -----Original Message----- >

**From: Shaun Merrigan [SMTP:smerriga@compusmart.ab.ca] > Sent: Sunday, November 11, 2001 3:02 PM > To: Premium Rx List Posting >**  
**Subject: Prem-Rx: RA 6830 Parts**

> > If anyone is looking for RA6830 parts, > TSS is selling a number of blank(!) and > populated boards for that model on Ebay. A > search for "racal" will turn them up.

> > Shaun

> > ----- > Shaun Merrigan > smerriga@compusmart.ab.ca  
-----

Date: Sat, 17 Nov 2001 19:45:35 +0100  
From: "C. van Ravenswaaij" <cortec@wanadoo.nl>  
Subject: Prem-Rx: Information souht about Siemens E411 receiver Hi all,

**Does anyone have any information about the Siemens E411 receiver? One of the surplus stores here will probably get a few of these rigs. The guy wasn't able to tell me anything about it.**

Regards,

Cornel

-----  
Date: Sat, 17 Nov 2001 12:32:43 -0800

From: "Greg Bailey" <gbailey@mail.sdsu.edu>

Subject: Prem-Rx: New Member- Jerry Kincade From Mustang, Oklahoma, Jerry Kincade, W5KP, joins our List. Jerry, like many of us, started years ago with BA receivers and has restored many. In fact he claims that there are a pair of 390As holding down the floor of his lab which he directly attributes (actually 'blames' is a better word) to the Rippel Kid. Jerry's background consists of 42 years as a military and commercial RF communications and electronics tech and systems engineer, 25 years in cryptographic (secure) military communications, and 36 years as a ham, currently with an Extra. (Ed note: extra is 20 WPM, which sounds like a blur to me).

At present Jerry is looking to add a 590A to his collection. It is interesting to note that our newest member is so motivated that he has been purchasing spare 590 modules for the day that Santa brings him the 590A. Perhaps a List member can contact Jerry and tell him where an extra 590 is living???

As a note of interest, Jerry is an antenna man and has a number of Web postings regarding his past antenna activities.

You can reach Jerry at: w5kp@swbell.net

Greg

-----  
Date: Sat, 17 Nov 2001 12:48:26 -0800

From: "Greg Bailey" <gbailey@mail.sdsu.edu>

Subject: Prem-Rx: Special Membership- Alberto di Bene, I2PHD Gentlemen:

Alberto di Bene, I2PHD, from northern Italy joins our List. We are extending a special membership to Alberto at this time as he is presently in search of a "premium-rx" and desires to read the mail on our List. Alberto has an extensive Website ( <http://www.qsl.net/i2phd/> ) and is interested in DSP as it pertains to QRM and SWL/Ham radio.

ANYONE with a call sign like I2PhD has got to be worthy of extending a membership, and we look forward to the day when he starts posting questions about some radio he bought for 600 Lire at a flea market with the name of "Rockwell Collins 2050, or Harris 590A, or...."

We welcome you to our list and wish you luck in finding that Premium you are looking for.

Greg

-----  
Date: Sat, 17 Nov 2001 18:00:33 -0500

From: "Howard L Ritter, Jr" <hritter@mindspring.com>

Subject: RE: Prem-Rx: New Member- Jerry Kincade - -----Original Message----- >

From: owner-premium-rx@engineering.sdsu.edu >[mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Greg Bailey >Sent: Saturday, November 17, 2001 3:33 PM >To: Premium >Subject: Prem-Rx: New Member- Jerry Kincade

>> snip<

>> Jerry's background consists of 42 years as a >military and commercial RF communications and electronics tech and systems >engineer, 25 years in cryptographic (secure) military communications, and 36 >years as a ham, currently with an Extra.

>> snip<

Let's see, that makes him 103 years old, plus however many years he had when he began this fabulous career....

Or does being a BA aficionado only make life \*seem\* that long?...

(You DID mean consecutively, no? ;-))

Welcome, Jerry. And don't worry--this is the only irreverent, irrelevant post you'll ever see here. Nothing but sobersided narrow bandwidth.

--howard n7exn

-----  
Date: Sat, 17 Nov 2001 18:07:28 -0500

From: "Howard L Ritter, Jr" <hlritter@mindspring.com>

Subject: RE: Prem-Rx: Special Membership- Alberto di Bene, I 2PHD - -----Original Message----- >

From: owner-premium-rx@engineering.sdsu.edu >[mailto:owner-premium-rx@engineering.sdsu.edu]On Behalf Of Greg Bailey >Sent: Saturday, November 17, 2001 3:48 PM >To: Premium >

Subject: Prem-Rx: Special Membership- Alberto di Bene, I 2PHD

>>>Gentlemen:

>> Alberto di Bene, I 2PHD, from northern Italy joins our List...and we look forward to the day when he >starts posting questions about some radio he bought for 600 Lire at a flea market with the name of >"Rockwell Collins 2050, or Harris 590A, or....."

**Somebody let Jerry Kincade know! I'm sure he's ready to pay Alberto DOUBLE for that 590A...maybe even 2000 lire....**

--howard n7exn

-----  
Date: Sat, 17 Nov 2001 22:29:05 -0500 (EST)

From: Paul Bernhardt <bern@ppdmail.nrl.navy.mil>

Subject: Re: Prem-Rx: Information souht about Siemens E411 receiver Cornel, I have the manual for the E311 but I don't have any information on the E411. Paul Bernhardt

Work:PA. Bernhardt Home: Paul Bernhardt, KF4FOR Code 6794 5704 Ridge View Dr. Naval Research Laboratory Alexandria, VA 22310 Washington, DC 20375 Tel: 202-767-0196 703-960-9656 FAX: 202-767-0631

On Sat, 17 Nov 2001, C. van Ravenswaaij wrote:

> Hi all,

> > Does anyone have any information about the Siemens E411 receiver? > One of the surplus stores here will probably get a few of these rigs. The > guy wasn't able to tell me anything about it.

> > Regards,

> > Cornel >

-----  
Date: Sun, 18 Nov 2001 19:14:39 -0600

From: "Bob Nickels" <ranickel@mwci.net>

Subject: Prem-Rx: Sig Gen FS Awhile back there was an interesting discussion regarding the spectral purity of signal generators like the HP 8640 for receiver alignment. I've got a HP model 8640-323 (the military version, .5-500 mhz, less ugly 'transit case') for sale, \$250 plus shipping, if anyone's interested.

Thanks and 73, Bob W9RAN

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**End of premium-rx-digest V1 #164 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #165**  
**premium-rx-digest Monday, November 26 2001 Volume 01 : Number 165**  
-----

----- Date: Mon, 19 Nov 2001 09:30:12 +0100  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: Sig Gen FS That's a bargain 8640B if it's in reasonable condition. Current price in UK From dealers is around \$750, and I can tell you that the 8640B is still a great low noise source, even if you do have to tune and lock every time you move frequency. 73 John

- -----Original Message-----

**From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Bob Nickels Sent: 19 November 2001 02:15 To: Premium Subject: Prem-Rx: Sig Gen FS**

While back there was an interesting discussion regarding the spectral purity of signal generators like the HP 8640 for receiver alignment. I've got a HP model 8640-323 (the military version, .5-500 mhz, less ugly 'transit case') for sale, \$250 plus shipping, if anyone's interested.

Thanks and 73, Bob W9RAN

-----  
Date: Tue, 20 Nov 2001 21:55:07 -0600  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: WJ-8718A/MFP manual available I have two people asking me to make copies of the WJ-8718A/MFP option manual. If anyone else would like a copy, I can just as easily punch 3 or 4 into the copier as 2. Price will be \$35 postpaid. It is the later edition manual with the MFP-A3 board number 794308 and MFP-A4 board of 794275. (Check your receiver - there is another variant and the boards are radically different).

**This is the same manual Fair Radio sells with missing pages. If you have that manual and just need the missing pages, I can supply those for \$6 postpaid.**

Best, Terry O'

-----  
Date: Sat, 24 Nov 2001 00:44:48 -0800  
From: "refmon" <monitor@referencevideo.com>  
Subject: Prem-Rx: found some Watkins Johnson Tech Notes

- =====\_NextPart\_000\_0009\_01C17481.3873C940

Hi

This may not be news to everyone, but I thought I'd post the following = base URL to what I find as a very informative batch of arcvged Watkins = Johnson tech notes. That url is:  
<http://www.wj.com/pdf/technotes/> . = There are also a number of other areas on the wj.com site that may prove = informative.

happy reading!

John Collins \_\_\_\_\_

- -----=\_NextPart\_000\_0009\_01C17481.3873C940

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Hi

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<DIV><FONT face=3DArial size=3D2>This may not be news to everyone, but I = thought I'd  
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href=3D"http://www.wj.com/pdf/technotes/"> http://www.wj.com/pdf/technotes=  
</A> &nbsp;</FONT> There are also a number of other areas on the wj.com site that may prove =  
informative.</FONT></DIV> <DIV><FONT face=3DArial  
size=3D2></FONT> &nbsp;</DIV> <DIV><FONT face=3DArial size=3D2>happy  
reading!</FONT></DIV> <DIV><FONT face=3DArial size=3D2></FONT> &nbsp;</DIV>  
<DIV><FONT face=3DArial size=3D2>John Collins</FONT></DIV> <DIV><FONT  
face=3DArial = size=3D2> \_\_\_\_\_</FONT></DIV></BODY></HTML>

- -----=\_NextPart\_000\_0009\_01C17481.3873C940--

-----  
Date: Sat, 24 Nov 2001 12:31:07 +0100  
From: Vittorio De Tomasi <ik2czl@amsat.org>  
Subject: Re: Prem-Rx: found some Watkins Johnson Tech Notes > refmon wrote:

>>  
Hi

>> This may not be news to everyone, but I thought I'd post the following > base URL to what I find  
as a very informative batch of arcgived > Watkins Johnson tech notes. That url is: >  
http://www.wj.com/pdf/technotes/ . There are also a number of other > areas on the wj.com site that  
may prove informative. >

Hi

it seems to me that the webmaster of wj.com has also found that you discovered that hidden  
treasure...trying to open the URL results (at least to me now) in a "Directory listing denied" error. I  
tried digging a bit for the usual index.htm, index.html and so on but no success! Has anybody been  
succesful picking up some document, and so wise to bookmark its complete url!?!?

vy 73

Vittorio

\_ \_ \_ \*\*\*\*\*

Vittorio De Tomasi ik2czl@amsat.org http://www.weaksignals.com

"Sometimes things just don't make sense, and that's just the way it is. Live with it. More tea?" -  
Richard Feynman

-----  
Date: Sat, 24 Nov 2001 07:59:14 -0500  
From: "Tom Vojtek" <tomvojtek@home.com>  
Subject: Re: Prem-Rx: found some Watkins Johnson Tech Notes Try  
http://www.wj.com/technotes/index.asp .

73 Tom Vojtek

- ----- Original Message -----

From: "Vittorio De Tomasi" <ik2czl@amsat.org> To: <Premium-Rx@kahuna.sdsu.edu> Sent: Saturday, November 24, 2001 6:31 AM

Subject: Re: Prem-Rx: found some Watkins Johnson Tech Notes

> > refmon wrote:

> > > >

Hi

> > > > This may not be news to everyone, but I thought I'd post the following

> > base URL to what I find as a very informative batch of arcgived

> > Watkins Johnson tech notes. That url is:

> > <http://www.wj.com/pdf/technotes/> . There are also a number of other

> > areas on the wj.com site that may prove informative.

> > > >

Hi

> > it seems to me that the webmaster of wj.com has also found that you > discovered that hidden treasure...trying to open the URL results (at > least to me now) in a "Directory listing denied" error. I tried digging > a bit for the usual index.htm, index.html and so on but no success! Has > anybody been succesful picking up some document, and so wise to bookmark > its complete url!?!?

> > vy 73

> > Vittorio

> > -- >

\*\*\*\*\* >

Vittorio De Tomasi ik2czl@amsat.org > <http://www.weaksignals.com>

> > "Sometimes things just don't make sense, and that's just the way it is. > Live with it. More tea?"

- Richard Feynman >

-----

Date: Sat, 24 Nov 2001 13:52:27 EST

From: DAVEI NBHAM@aol.com

Subject: Prem-Rx: Specs for Racal RA1794 Does anyone on this list have a Racal RA1794 ? Failing that, does anyone know where I might find specifications on the Racal RA1794 radio ?

Regards, Dave

-----

Date: Mon, 26 Nov 2001 19:10:25 EST

From: Daiungoed@aol.com

Subject: Prem-Rx: NEW MEMBER

Hi

As an existing member, it is so long ago that I joined, so I cannot remember how to do it. A friend has just acquired a qualifying receiver, RA1792, so how does he join?? Dave

-----

End of premium-rx-digest V1 #165 \*\*\*\*\*  
Subject: premium-rx-digest V1 #166  
premium-rx-digest Thursday, December 6 2001 Volume 01 : Number 166

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----- Date: Wed, 28 Nov 2001 20:31:59 -0600  
From: "Joe Watson" <wwatson@mmcable.com>  
Subject: Prem-Rx: Need my memory jogged re my Racal RA6790GM

- -----= \_NextPart\_000\_0010\_01C1784B.BAEC8E70

I have moved and have not yet located my manual for the RA6790GM.

I need to invoke the BITE but I cannot remember the formula.

Could someone jog my memory?

Thanks.

Joe Watson

- -----= \_NextPart\_000\_0010\_01C1784B.BAEC8E70

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</HEAD> <BODY bgColor= 3D#ffffff> <DIV> <FONT face= 3DArial size= 3D2> I have moved  
and have not yet located = my manual for the RA6790GM.&nbsp; </FONT> </DIV>  
<DIV> <FONT face= 3DArial size= 3D2> </FONT> &nbsp; </DIV> <DIV> <FONT  
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formula.&nbsp; </FONT> </DIV> <DIV> &nbsp; </DIV> <DIV> <FONT face= 3DArial  
size= 3D2> Could someone jog my = memory? </FONT> </DIV> <DIV> &nbsp; </DIV>  
<DIV> <FONT face= 3DArial size= 3D2> Thanks. </FONT> </DIV> <DIV> &nbsp; </DIV>  
<DIV> <FONT face= 3DArial size= 3D2> Joe Watson </FONT> </DIV> </BODY> </HTML>
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- -----= \_NextPart\_000\_0010\_01C1784B.BAEC8E70--

---

Date: Wed, 28 Nov 2001 19:09:33 -0800 (PST)  
From: Robert Kelley <pasha@kali.com>  
Subject: Re: Prem-Rx: Need my memory jogged re my Racal RA6790GM Turn the receiver on. Press local/remote if necessary to put it in local mode. Press man if necessary to put it in manual AGC mode. Set the meter indication for RF level. Rotate the IF Gain potentiometer fully, verify RF level 0 to full scale. Press LOCK and AM simultaneously for BITE.

- -- Nothing could serve those who believe that American "safety" is more important than American liberty better than something like this. Control freaks will dine on this day for the rest of our lives. - --  
John Perry Barlow, on the events of 9/11/2001.

On Wed, 28 Nov 2001, Joe Watson wrote:

- > I have moved and have not yet located my manual for the RA6790GM.
- > > I need to invoke the BITE but I cannot remember the formula.
- > > Could someone jog my memory?
- > > Thanks.
- > > Joe Watson >

-----  
Date: Wed, 28 Nov 2001 19:16:11 -0800

From: jmcvein@teleport.com

Subject: Prem-Rx: Filter retrofit in '6790? I have a Racal 6790 here that was fitted with Xtal filters, but now has Collins filters installed. Is there a way to get the radio to pass bite with them? Does anyone know the key sequence for forced override? The set works fine, I just lie to it with another IF board, then install the board with the Collins filters.

**Too many radios, not enough filters.**

**Jim McVein**

-----

Date: Thu, 29 Nov 2001 14:02:37 -0600

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>

Subject: Re: Prem-Rx: Filter retrofit in '6790? I have two Collins mech filters (USB/LSB) on plug in boards I made to fit and five stock Racal crystal filters all in the same receiver. The BITE swept all and installed them beautifully. How would it distinguish between the two types of filters?

**Terry O'**

**At 07:16 PM 11/28/2001 -0800, you wrote: > I have a Racal 6790 here that was fitted with Xtal filters, but now > has Collins filters installed. Is there a way to get the radio to pass > bite with them? Does anyone know the key sequence for forced > override? The set works fine, I just lie to it with another IF board, > then install the board with the Collins filters.**

-----

Date: Fri, 30 Nov 2001 01:56:46 -0600

From: Turkisher Dan-CSLC82 <Dan.Turkisher@motorola.com>

Subject: Prem-Rx: WTB: Meter for Collins 651S1 Looking for meter for Collins 651S1, Collins P/N 458-0840-010. Meter originally made by Modutec. Please email me with price & condition, to cslc82@email.mot.com Thanks! DT KODAN

-----

Date: Fri, 30 Nov 2001 08:10:00 -0500

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Filter retrofit in '6790? The USB and LSB filters have offset frequency response. It ends up being a BFO frequency issue. These filters require the BFO to be at 455 kHz. Other filters have the BFO above or below the center frequency. fc

> -----Original Message----- >

**From: Terry O'Laughlin [SMTP:terryo@wort-fm.terracom.net] > Sent: Thursday, November 29, 2001 3:03 PM > To: premium-rx@kahuna.sdsu.edu >**

**Subject: Re: Prem-Rx: Filter retrofit in '6790?**

> > I have two Collins mech filters (USB/LSB) on plug in boards I made to fit > and five stock Racal crystal filters all in the same receiver. The BITE > swept all and installed them beautifully. > How would it distinguish between the two types of filters?

> > Terry O'

> > > At 07:16 PM 11/28/2001 -0800, you wrote:

> > I have a Racal 6790 here that was fitted with Xtal filters, but now



> > has Collins filters installed. Is there a way to get the radio to pass  
> > bite with them? Does anyone know the key sequence for forced  
> > override? The set works fine, I just lie to it with another IF board,  
> > then install the board with the Collins filters. >

-----  
Date: Tue, 4 Dec 2001 13:24:35 EST  
From: Aidehua@aol.com  
Subject: Prem-Rx: WTB: JRC NRD-93 Looking for one of these....Probably impossible but thought I'd ask!

73, Ed NI6S

-----  
Date: Tue, 04 Dec 2001 13:42:05 -0500  
From: "Mike Melland" <w9wis@charter.net>  
Subject: Prem-Rx: Audio on Racal 6790/GM Hello all,

I'm a new member having joined about 2 weeks ago. I haven't seen a notice regarding my joining so perhaps I'm jumping the gun here.

I very recently purchased a refurbished RA6790/GM from Gary Wingerd. I haven't had the opportunity to use it much yet, I just received it, but I am impressed with it so far. My question is in regard to what I would describe as sharp static pops that are present when listening to cw in the .4 KHz filter position. The static bursts are of very short duration, not present on every character but do appear to be related to and track the cw characters. I have tried the agc positions as well as utilizing the manual IF adjustments and can get the noise to go away when the if gain is turned way down. Is this just an anomaly of the agc system in this receiver ? I suspect another cause could be the military HS-251A/U 600 ohm phones I'm using. BTW I have not hooked up a speaker yet... just using the 600 ohm phone output on the rig for phones. I don't notice this on any other mode. And... this rig does have the preamp.

Thanks,

Mike Melland, W9WIS Oshkosh, Wisconsin

-----  
Date: Tue, 04 Dec 2001 13:38:11 -0800  
From: Jerry Kincade <w5kp@swbell.net>  
Subject: Prem-Rx: RF-590A pinout Whilst waiting on the manual for my "new" 590A, I'd like to do some shack integration planning. Would someone please look in their manual and pass me the pinout info for the rear terminal boards? BTW, this my first 590A, and it appears to live up to its billing. A great receiver. Thanks, 73, Jerry W5KP

-----  
Date: Thu, 06 Dec 2001 13:09:16 -0600  
From: "Terry O'Laughlin" <terryo@wort-fm.terra.com.net>  
Subject: Prem-Rx: Misrepresented or counterfeit gear - =====\_1048667==\_.ALT ; format=flowed

I though I had seen it all on eBay, until now. Someone appears to be passing off home made equipment as a real Watkins Johnson accessory. What next?

WJ Watkins Johnson PKC option Item # 1306745719

A quick check of the PKC manual reveals that the item for sale contains a keyboard, a 74C923 and two capacitors. The rightmost column of keys is supposed to be labelled (top to bottom): TUN, STO, LCK, CLR. Any real WJ or aftermarket product would probably have the keys properly silk screened.

If anyone wants to build one, I'd be happy to scan the schematic and send it to you. It plugs into the little ten pin IDC jack just to the lower right of the 8617/8618 tuning knob.

Any bets on how high it will go?

Best, Terry O'

--===== \_1048667== \_ALT

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--===== \_1048667== \_ALT--

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End of premium-rx-digest V1 #166 \*\*\*\*\*  
Subject: premium-rx-digest V1 #167  
premium-rx-digest Thursday, December 13 2001 Volume 01 : Number 167  
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----- Date: Thu, 6 Dec 2001 17:11:40 -0500 (EST)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: Misrepresented or counterfeit gear

Hi  
Sometimes a large customer or government needs a small lot of modules previously made by a large (generally) vendor who cannot, because of lack of time, talent, folklore or will not, because of accountants, make them.

Small companies or groups will then "build to print" or "build to spec" in order to satisfy requirement. Depending on budget, sometimes cosmetics or even some operational parameters are different, but acceptable to customer. I'm involved in this type of activity at present with a small group.

Undoubtedly some on this list know the true story behind the "5 Fowler Industries R-390As" made for, I believe, LSTs being built on the bayou.

I looked at a cordless phone in a Target store a few days ago. It was not supposed to be "B" stock, but it said "may contain new and remanufactured components". Sort of like cherry jam and the occasional pit.

74,

Steve

-----  
Date: Thu, 6 Dec 2001 20:17:26 EST  
From: Ka9p@aol.com

Subject: Prem-Rx: Re: WJ8711A DSP I recently read on DaveZ's RX340 website that the current flavor of WJ8711A uses a 24 bit Motorola DSP processor, and there was a comment to the effect that the RX340 DSP processor was a 16 bit device - "a step back" or something like that. So I looked on a recent 8711A data sheet, and it says what the HF1000 and 8711 sheets have always said - 16 bit processing, although I confirmed in the HF1000A manual that it is running the same 24 bit processor.

Obviously I'm missing the boat here and should have paid more attention a while back when this was a hot topic. Could an 8711 implement 24 bit processing, or is it limited by bus or other component limitations? Or was the 24 bit processor selected for some other reason? What's the diff between 16 bit processing implemented by a 16 bit DSP chip vs. a 24 bit DSP chip, if any, and would I care? Any tutorial welcome - I feel like a dumb donkey on this one....Thanks, Scott

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Date: Thu, 6 Dec 2001 20:32:27 -0800  
From: "Charles Hutton" <chutton1@qwest.net>  
Subject: RE: Prem-Rx: Misrepresented or counterfeit gear

- -----=\_NextPart\_000\_0010\_01C17E95.1F0F2E40

Terry:

Down at the end, the ad clearly says that it was not manufactured by W-J. As for how high the price goes, that depends on those wonderful ebay buyers..... I've seen CD's go for more than they cost at Amazon and if people will do that, anything is possible.

Chuck

-----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Terry O'Laughlin Sent: Thursday, December 06, 2001 11:09 AM To: Premium-RX@kahuna.sdsu.edu

Subject: Prem-Rx: Misrepresented or counterfeit gear

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WJ Watkins Johnson PKC option Item # 1306745719

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07122001> Terry:</SPAN></FONT></DIV> <DIV><FONT color= 3D#0000ff face= 3DArial
size= 3D2><SPAN class= 3D660273004-07122001></SPAN></FONT> &nbsp;</DIV>
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From:</B> owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu]< B> On Behalf Of = </B> Terry O'Laughlin< BR> < B> Sent:</B> Thursday, December 06, 2001 11:09 = AM< BR> < B> To:</B> Premium-RX@kahuna.sdsu.edu< BR> < B>

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- -----= \_NextPart\_000\_0010\_01C17E95.1F0F2E40--

Date: Fri, 7 Dec 2001 02:12:54 EST  
From: CLeyson@aol.com  
Subject: Prem-Rx: Re: WJ8711A DSP - --part1\_50.2f9c11c.2941c5f6\_boundary

One of the main advantages of using a 24-bit processor over a 16-bit device is processing speed. Typically, a 16-bit instruction would allow one arithmetic operation and one data move, 24-bit instructions let you do two data moves. Also, dynamic range (digital) is increased to 140dB with a 24-bit data word.

In the real world the performance is going to be limited by the A-D converters. Although 24-bit A-D converters are available they don't offer much more than 16-bit converters. Spurious free dynamic range is still only 90dB at best.

Chris Leyson

- --part1\_50.2f9c11c.2941c5f6\_boundary

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--part1\_50.2f9c11c.2941c5f6\_boundary--

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Date: Fri, 07 Dec 2001 05:47:48 -0800  
From: Jerry Kincade <w5kp@swbell.net>  
Subject: Re: Prem-Rx: Re: WJ8711A DSP Kind of makes one wonder about the "32-bit DSP" offered in the latest Nintendo style radios from Icom and others, doesn't it. Hmmm... 73, Jerry W5KP

- ----- Original Message -----

From: <CLeyson@aol.com> To: <Premium-RX@kahuna.sdsu.edu> Sent: Thursday, December 06, 2001 11:12 PM

Subject: Prem-Rx: Re: WJ8711A DSP

> One of the main advantages of using a 24-bit processor over a 16-bit device > is processing speed. Typically, a 16-bit instruction would allow one > arithmetic > operation and one data move, 24-bit instructions let you do two data moves. > Also, dynamic range (digital) is increased to 140dB with a 24-bit data word.

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> > Chris Leyson >

-----  
Date: Fri, 7 Dec 2001 12:28:36 -0000  
From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: Racal RA1792 Replacement Displays I've just had a chat to Marc Christian at Telford Electronics about replacement displays for the RA1792. My displays are rather "streaky" and after Jean Philippe Lebon's enquiry of 5th November I thought that I'd have a word with Telford regarding their replacement

RA1792 owners may be interested to know that Telford Electronics will supply new displays for £45 each.

Cheers

Tracey

-----  
Date: Fri, 07 Dec 2001 14:44:36 +0100  
From: Alberto di Bene <dibene@usa.net>  
Subject: Re: Prem-Rx: Re: WJ8711A DSP Jerry Kincade wrote:

> Kind of makes one wonder about the "32-bit DSP" offered in the latest > Nintendo style radios from Icom and others, doesn't it. Hmmm... > 73, Jerry W5KP >

The advantage of 24- and 32-bit processors is the greater precision possible when computing intermediate results, with less truncation errors. This can make a great difference, especially when computing an IIR on the stability border. With 16 bits you cannot afford to place the poles too near to the unit circle, or the filter will become unstable (oscillate). With 32 bits you can go much further.

It is important to remember that when evaluating a DSP system, the following items must not be mixed one for another :

- - The ADC / DAC resolution. 16-bit is common, and now 24-bit is starting to appear, though their noise floor is far higher than the theoretical -144 dB. You can consider quite good everything surpassing -100 dB.

- - The data registers width. This is what I referred to in the opening paragraph of this message. The old TMS320C50 had a data width of 16 bits, while, e.g., the comparably old 56002 from Motorola offered 24 bits.

- - The instruction length. This is directly related to the speed with which the DSP processes its program. The greater the better. Now 32 bits is common.

It is quite common to read in the marketing blurbs of ham transceivers : 32-bit DSP !! But they do not specify what bits they are referring to.....

73 Alberto I2PHD

-----  
Date: Fri, 07 Dec 2001 15:59:49 -0500

From: michael j brown <piggin@mindspring.com>

Subject: Prem-Rx: A/D conversion I hope we soon see 64 bit DSP processors. In my dream machine, a display would show the real filter bandpass, and the user could shape it directly via touch-pad. Of course, this would overlay a spectrum display showing 30kc at least. This sounds great until one encounters the A/D conversion stage. 100DB noise floor? Huge disappointment there. Dynamic range of 90DB? also not too praiseworthy. In real world use, this is probably enough if enough low noise gain and excellent agc proceed these stages. Even so, I await whisper quiet 32 bit A/D converters. And the faster, the better. I remember when radios drifted a lot....and had analog frequency display. I am pleased for the most part by progress in the state of the art. We will just have to wait a bit longer for the components to build the Ultimate DSP rig!

-----  
Date: Fri, 7 Dec 2001 15:23:18 -0800

From: Bradford Anderson-SSI <BAnderson@ssi.samsung.com>

Subject: Prem-Rx: Small "Rack" case

- -----\_ = \_NextPart\_001\_01C17F76.27246690

I've noticed the occasional question about rack style "cases" on the reflector.

For those looking for a huge variety of small "rack" style cases, I just found a huge selection at [www.digikey.com](http://www.digikey.com) They carry the "Hammond" cabinets (like the HM-625ND) which has the shallow depth (saves desk space) for a rig like the TenTec 340.

The Hammond cabinet site is at [www.hammondmfg.com](http://www.hammondmfg.com)

- -----\_ = \_NextPart\_001\_01C17F76.27246690

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<P><FONT SIZE= 3D2> I've noticed the occasional question about rack style =
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-----  
Date: Sun, 09 Dec 2001 13:42:43 -0500

From: michael j brown <piggin@mindspring.com>

Subject: Prem-Rx: Headsets for reference/dxing Ever since the 70s I have used Koss PRO4AA headphones for dxing and music listening. They are excellent except in the area of comfort. They are heavy...I cant wear them easily for over an hour! Most of the light headsets I have tried recently have ridiculous bass emphasis...great for zero beating, but little else! What kind of units are in use by the list? I would really like some input here...somebody must make a flat response studio monitor headset that doesnt weigh 4 lbs! I hear that sennheisers are excellent....sadly, there are few places here to get them, so I will need list input to decide. I also notice a trend here in the stores to carry 30 dollar units....a dearth of high end equipment is evident. This certainly doesnt help! Thanks in advance for your assistance!

-----  
Date: Sun, 9 Dec 2001 10:54:08 -0800 (PST)

From: Robert Kelley <pasha@kali.com>

Subject: Re: Prem-Rx: Headsets for reference/dxing I like my Sony MDR-V700 "DJ" headphones.

On Sun, 9 Dec 2001, michael j brown wrote:

> Ever since the 70s I have used Koss PRO4AA headphones for dxing and music > listening. They are excellent except in the area of comfort. They are > heavy...I cant wear them easily for over an hour! Most of the light headsets > I have tried recently have ridiculous bass emphasis...great for zero > beating, but little else! What kind of units are in use by the list? I would > really like some input here...somebody must make a flat response studio > monitor headset that doesnt weigh 4 lbs! I hear that sennheisers are > excellent....sadly, there are few places here to get them, so I will need > list input to decide. I also notice a trend here in the stores to carry 30 > dollar units....a dearth of high end equipment is evident. This certainly > doesnt help! Thanks in advance for your assistance! >

-----  
Date: Sun, 09 Dec 2001 15:35:02 -0800

From: Martin Colby <mcolby@cts.com>

Subject: Re: Prem-Rx: Headsets for reference/dxing Though I used them for music, I've always liked the Koss PRO4AA phones myself, though with the same single problem (too heavy!).

For music use, I checked out a number of phones, but was not happy until I got some Sennheiser cordless ones (900MHZ). Don't know if they would cause any interference issues with comm receivers, but they are great for music. Have also had good results with Sennheiser corded models. (BTW, all other cordless phones I used/checked out were JUNK, Sennheiser seems to be only ones who got it right...)

Good luck.

Martin San Diego

At 01:42 PM 12/9/2001 -0500, michael j brown wrote: > Ever since the 70s I have used Koss PRO4AA headphones for dxing and music > listening. They are excellent except in the area of comfort. They are > heavy...I cant wear them easily for over an hour! Most of the light headsets > I have

tried recently have ridiculous bass emphasis...great for zero > beating, but little else!What kind of units are in use by the list?I would > really like some input here...somebody must make a flat response studio > monitor headset that doesnt weigh 4 lbs!I hear that sennheisers are > excellent....sadly, there are few places here to get them, so I will need > list input to decide.I also notice a trend here in the stores to carry 30 > dollar units....a dearth of high end equipment is evident.This certainly > doesnt help!Thanks in advance for your assistance!

-----  
Date: Sun, 9 Dec 2001 16:58:26 -0800  
From: "Guy Atkins" <dx@guyatkins.com>  
Subject: FW: Prem-Rx: Headsets for reference/dxing Michael,

A number of us who attend the Grayland DXpeditions in WA state have grown fond of the "behind the head" passive-isolation headphones sold by Radio Shack. I've tried many headphones over the years for communication use, but the RS #33-1158 are the best all-around headphones I've found for the three important categories of: comfort, isolation, and clarity. Here's a link to this model:  
<http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&category%5Fname=CTLG%5F001%5F002%5F007%5F000&product%5Fid=33%2D1158>

These headphones are priced at \$69.99. I love the fluid-filled earpads which are excellent for reducing family QRM at home or other DXer's chit-chat on group DXpeditions. These are made by Koss, and I believe that a similar version with dual volume controls (rather than the single control on the RS version) is available on the Koss web site for \$10 less.

Another headphone high on my list is the Sennheiser HD-525. They are very comfortable and lightweight for an over-the-ear style, and their low distortion audio is appreciated when used with receivers known for good sound (AR7030, etc.). I bought these for about \$50 factory-refurbished, via an Ebay auction. The only drawback is that the HD-525 reduces ambient noise only moderately.

The RS/Koss headphones are tailored somewhat for communications use, having a low-end rolloff at 40 Hz. The Sennheiser model extends down to 15 or 20 Hz, with a flat response (no artificial bump in the bass). I often use a DSP filter with either of these headphones to change the highpass frequency to 150-200 Hz when I'm DXing. I use the full range of the Sennheisers (no DSP) to enjoy strong music broadcasts on shortwave.

In short, I recommend the RS/Koss model for general use or on DXpeditions, the Sennheiser solo for SWling/program listening, and the Sennheiser with DSP highpass for critical listening to very weak DX (the Sennheiser's clarity helps to pull out the last ounce of intelligibility in a poor S/N ratio signal, IMHO ).

regards,

Guy Atkins Bonney Lake, WA dx@guyatkins.com

PS: I've also used aviation headsets made by the David Clark Co.; these were very nice for voice-only reproduction, but tiring for music. I found them too heavy and vise-like to wear comfortably for more than an hour.

> -----Original Message----- >

From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu]On Behalf Of michael j brown > Sent: Sunday, December 09, 2001 10:43 AM > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Headsets for reference/dxing

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-----  
Date: Sun, 09 Dec 2001 19:27:03 -0800  
From: Craig McCartney <craigmc@pacbell.net>  
Subject: RE: Prem-Rx: Headsets for reference/dxing Michael,

The Radio Shack 33-1158 looks good, as far as the description on the www page goes. There is just one thing: Sometimes I like to "split the cans" to monitor more than one channel. That, of course, requires stereo headphones and this RS model is mono. Is there a stereo equivalent that you know of?

Craig

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Guy Atkins Sent: Sunday, December 09, 2001 4:58 PM To: Premium-RX List

Subject: FW: Prem-Rx: Headsets for reference/dxing

Michael,

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From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu]On Behalf Of michael j brown > Sent: Sunday, December 09, 2001 10:43 AM > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Headsets for reference/dxing

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-----  
Date: Sun, 9 Dec 2001 20:31:22 -0800  
From: "Guy Atkins" <dx@guyatkins.com>  
Subject: RE: Prem-Rx: Headsets for reference/dxing Craig,

I think that the QZ-99 model at the Koss web site is Koss' stereo version of the RS headphones:

<http://www.koss.com/koss/kossweb.nsf/OpenNoise>

Click on "QZ-99" when you go to this web page. I notice it has a mono/stereo switch.

The headband is different, but the isolation from ambient noises is the same. The "housing" for each earpiece looks to be the same.

Guy Atkins Bonney Lake, WA dx@guyatkins.com

> -----Original Message----- >

From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu]On Behalf Of Craig McCartney > Sent: Sunday, December 09, 2001 7:27 PM > To: Guy Atkins; Premium-RX List >

Subject: RE: Prem-Rx: Headsets for reference/dxing

> > > Michael,

> > The Radio Shack 33-1158 looks good, as far as the description on the www > page goes. There is just one thing: Sometimes I like to "split the cans" > to monitor more than one channel. That, of course, requires stereo > headphones and this RS model is mono. Is there a stereo > equivalent that you > know of?

> > Craig >

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Date: Sun, 9 Dec 2001 21:04:17 -0800  
From: "Charles Hutton" <chutton1@qwest.net>  
Subject: RE: Prem-Rx: Headsets for reference/dxing Moi, I think the QZ-5 is much, much more similar to the RS 33-1158 than is the QZ-99. The QZ-5 has the same top and rear headband and

earcups. And - although the web site does not say so - the QZ-5 does indeed have a stereo / mono switch. Phil Bytheway recently purchased a pair of them and verified that the QZ-5 has the switch.

Chuck

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Guy Atkins Sent: Sunday, December 09, 2001 8:31 PM To: Premium-RX List

Subject: RE: Prem-Rx: Headsets for reference/dxing

Craig,

I think that the QZ-99 model at the Koss web site is Koss' stereo version of the RS headphones:

<http://www.koss.com/koss/kossweb.nsf/OpenNoise>

Click on "QZ-99" when you go to this web page. I notice it has a mono/stereo switch.

The headband is different, but the isolation from ambient noises is the same. The "housing" for each earpiece looks to be the same.

Guy Atkins Bonney Lake, WA [dx@guyatkins.com](mailto:dx@guyatkins.com)

> -----Original Message----- >

From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Craig McCartney > Sent: Sunday, December 09, 2001 7:27 PM > To: Guy Atkins; Premium-RX List >

Subject: RE: Prem-Rx: Headsets for reference/dxing

> > > Michael,

> > The Radio Shack 33-1158 looks good, as far as the description on the www > page goes. There is just one thing: Sometimes I like to "split the cans" > to monitor more than one channel. That, of course, requires stereo > headphones and this RS model is mono. Is there a stereo > equivalent that you > know of?

> > Craig >

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Date: Sun, 9 Dec 2001 21:24:21 -0800

From: "Guy Atkins" <[dx@guyatkins.com](mailto:dx@guyatkins.com)>

Subject: RE: Prem-Rx: Headsets for reference/dxing  
Chuck, thanks for pointing out my goof. The QZ-5 is definitely the one I was remembering... I overlooked it today on the Koss web site. It's definitely the one I'd recommend, and only \$49.99, too.

Guy

> -----Original Message----- >

From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Charles Hutton > Sent: Sunday, December 09, 2001 9:04 PM > To: Guy Atkins; premium-rx@kahuna.sdsu.edu >

Subject: RE: Prem-Rx: Headsets for reference/dxing

> > > Moi, I think the QZ-5 is much, much more similar to the RS 33-1158 than is > the QZ-99. The QZ-5 has the same top and rear headband and earcups. And - > although the web site does not

say so - the QZ-5 does indeed have > a stereo / > mono switch. Phil Bytheway recently purchased a pair of them and verified > that the QZ-5 has the switch.

> > > Chuck

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Date: Mon, 10 Dec 2001 07:30:38 -0800  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member- Stuart Lamb Gentlemen:

Joining us from central England, Stuart Lamb is our newest member. Stuart obtained his amateur license in 1982, and over the years has focused on military HF receiving equipment. He started with a Murphy B40D some 20 years ago, then he inherited a pair of non-functioning RA 117s which turned into one operating unit. Recently he purchased a RA 1792.

Stuart is a mechanical engineer by profession and is the first to acknowledge that he feels more comfortable with a spanner and some 40W under his fingernails than a VOM and scope (sounds like a future R-390 hobbyist to me). As is the case with about 50% of our members, Stuart enjoys the SWL side of the hobby with the HF Oceanic and military traffic being of major interest.

Oh yes, between SWLing and his job, our newest member finds time rebuilding a Mercedes 300 ([www.mercedes300.co.uk](http://www.mercedes300.co.uk))

Say hello to Stuart at: [swlstu@blueyonder.co.uk](mailto:swlstu@blueyonder.co.uk)

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Date: Mon, 10 Dec 2001 10:39:20 EST  
From: Llgpt@aol.com  
Subject: Re: Prem-Rx: New Member- Stuart Lamb In a message dated 12/10/01 9:34:07 AM, gbailey@mail.sdsu.edu writes:

> Joining us from central England, Stuart Lamb is our newest member. Stuart  
> > obtained his amateur license in 1982, and over the years has focused on  
> > military HF receiving equipment. He started with a Murphy B40D

Now, there's a real Boat anchor

> > > > > > !!!!!

Les Locklear

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Date: Wed, 12 Dec 2001 18:14:08 EST  
From: DAVEI NBHAM@aol.com  
Subject: Prem-Rx: Dead Racal RA6790/GM Fellow Racal drivers, My not-so-trusty RA6790 has failed again. When I turned it on there was no sound, the left display was totally blank. The frequency display read 00400000 000. The LED's that normally backlight the displays were not lit. When I turned it off last night it was tuned to 6 mHz to listen to Arnie Coro. As the LED's are powered from the +15 volt supply, I suspected the power supply had failed. So, I opened the radio, disconnected J3 on the power supply and took some voltage readings. All voltages were normal except +15 unregulated was +24 volts and +5 volts unregulated was +13 volts. This seems a bit high even for the power supply unloaded. Also, there was that unmistakable smell caused by the smoke escaping from something. L4 on board A4 looks guilty. That is all I have had time for as of now. Anyone ever experinced anything like this with your RA6790 ? Anyone want to take a guess ? Any comments, hints etc appreciated.

Kindest regards, Dave Holder Birmingham, Alabama

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Date: Wed, 12 Dec 2001 19:12:24 -0500

From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>

Subject: Re: Prem-Rx: Dead Racal RA6790/GM Hi Dave, I don't have an RA6790, so my opinion may not be worth the effort it takes to read it. However, your unregulated voltages sound about right, to me; commecia power supplies usually have about a factor of two ratio between unregulated and regulated voltages. In any case, if the regulated voltages are correct, then it's pretty clear you don't have a problem with the power supplies.

However, the fact that the LED backlight isn't working is an important clue. I'd measure the + 15V regulated line with all circuits connected to the supply, and then measure it again with the circuits disconnected. If the regulated voltage drops below 15V when you connect the circuits, but is restored to the correct value when the circuits are removed (I'm guessing that's what connector J3 does), then you have a short circuit that's loading down the power supply. If component L4 is an inductor, then that's unlikely to cause the problem; inductors open up, rather than short circuit.

Finding a short on the board probably won't be too difficult. I'd start by looking for shorted electrolytic or tantalum capacitors. A dead IC would a possibility, but probably not too likely. Before doing anything, however, I'd reseal all the connectors to the PC boards. With any luck, that will be the problem.

Good luck! Jim Garland W8ZR

06:14 PM 12/12/2001, you wrote: > Fellow Racal drivers, > My not-so-trusty RA6790 has failed again. > When I turned it on there was no sound, the left display was totally blank. > The frequency display read 00400000 000. The LED's that normally backlight > the displays were not lit. When I turned it off last night it was tuned to 6 > MHz to listen to Arnie Coro. > As the LED's are powered from the + 15 volt supply, I suspected the power > supply had failed. So, I opened the radio, disconnected J3 on the power > supply and took some voltage readings. All voltages were normal except + 15 > unregulated was + 24 volts and + 5 volts unregulated was + 13 volts. This seems > a bit high even for the power supply unloaded. Also, there was that > unmistakable smell caused by the smoke escaping from something. L4 on board > A4 looks guilty. That is all I have had time for as of now. > Anyone ever experinced anything like this with your RA6790 ? Anyone want to > take a guess ? Any comments, hints etc appreciated.

> > Kindest regards, > Dave Holder > Birmingham, Alabama

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Date: Wed, 12 Dec 2001 22:44:30 -0500

From: Al Klase <skywaves@bw.webex.net>

Subject: Re: Prem-Rx: Dead Racal RA6790/GM Dave,

I wouldn't be concerned with the unregulated voltages you read. I can almost guarantee you have a shorted cap downstream from L4. If it smoked the choke, you should be able to find it with an ohmmeter whithout applying power. The black tantalum caps are suspect.

Good luck, Al

DAVEINBHAM@aol.com wrote: > .... > All voltages were normal except + 15 > unregulated was + 24 volts and + 5 volts unregulated was + 13 volts. This seems > a bit high even for the power supply unloaded. Also, there was that > unmistakable smell caused by the smoke escaping from something. L4 on board > A4 looks guilty. That is all I have had time for as of now. > Anyone ever experinced anything like this with your RA6790 ? Anyone want to > take a guess ? Any comments, hints etc appreciated.

-- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

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Date: Thu, 13 Dec 2001 21:47:22 -0500

From: michael j brown <piggin@mindspring.com>

Subject: Prem-Rx: premium-rx headphones First of all, I would like to thank every member who posted a reply to my call for help in the never ending quest for "the perfect premium-rx/reference headphone".I stated in my call for help that I had used Koss Pro4AAs since the 70's.Excellent phones...too heavy.While members of the list were flooding me with advice,I was burning the bank account down buying phones.Here is a list of what I got, and how they worked. Sony MDR-700DJ.129 dollars for an open box set from best buy, they are normally 149.50mm transducers, 32 ohms.117db/mw!! These are beautiful phones with build quality to match any premium-rx.They have a serious emphasis on bass response.The midrange is only good, and the treble has weird peaks in it.With eq to cut the treble and bass,they work ok but cant resolve voices in the noise as well as the pro4aa.Great for hard rock/industrial music,not great for premium-rx use.After an hour, they hurt my head...they squeeze pretty hard. At the other end of the spectrum, I got a pair of Koss UR-20 headphones for 24.99.These are ultra comfortable and very light.They have a very non-flat response with tons of mid-highs and some decent bass.Not very good for voice use.Fit and finish match the price.Not recommended for music either. Fostex T2ORP 109.95 at local music store.These are claimed to be designed for studio use.50 ohms,96db/mw 200mw max.These have remarkable detail and midrange response.There is no bass emphasis...yet its there and its enough.The highs are excellent.These are a semi-open design,so they dont provide total isolation from external noise.In addition, even though they claim a "light touch" they bugged my ears a bit from pressure after 2 hours or so.For voice recovery they are superb.Highly recommended for music....provided you are not a slave to the bass demon. In the interest of accuracy, I should point out the fact that "modern" Koss Pro4AAs do not have the same frequency response as my vintage pair.I have 3 pairs of these,2 vintage and one of modern manufacture.The new one boasted of an improved driver with extended bass response...I E: they ruined them.I fitted the padding from the new set to my old favorite pair.On the ITT Mackay Marine 3031A, this headphone is magic.When testing the other phones, I came to appreciate other mackay owners audio complaints.The sonys were really horrid in this regard. I noticed in the responses to my inquiry that many recommended the radio shack "scanner/race" phones.I have always felt that reference/studio grade phones were best for hardcore dxing.This assumes some ability to control frequency response either at the rx or externally if the radios audio is poor. Many will part company from me on this point, preferring transducers with a more limited frequency response.I find these types too stressfull for extended listening, hence my preference for "studio" gear.For snatching a rare ID, its possible these types might do the trick.But they drive me nuts for long term wear. To sum up, the Fostex phones are excellent...and lighter than the antique Koss units.I prefer them on my R-8500 and Drake R8A(they fix the "mellow" audio on the Drake...big time.)On serial #1496 3031A they also rule.On serial 1500 3031A the Koss still rule the roost. When I can obtain a chance to test some sennheisers, I will post the results.Thanks again to all for their help!

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**End of premium-rx-digest V1 #167 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #168**  
**premium-rx-digest Friday, December 21 2001 Volume 01 : Number 168**  
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----- Date: Fri, 14 Dec 2001 09:33:42 -0500

From: "Mike Melland" <w9wis@charter.net>

Subject: Prem-Rx: Noisy audio on RA6790/GM I received some good suggestions in tracking down the audio problem with my RA6790/GM. But having tried/tested the suspect areas I still have the noise but have made some discoveries.

1. When I follow the procedure in the manual to adjust/set the line level of the main output (screw pot on the front)I get a slight "crackely" sound in the audio through both the phones and 8 Ohm speaker output. This may be related to what I have observed in number 2.

2. Previously when listening to a station around 7 MHz or 15 MHz via the 8 Ohm speaker output, as the volume is turned up the audio starts to break up and it pretty much is unintelligible. I was informed that if the speaker I was using for the 8 Ohm output had a cross over network in it that it may cause an problem and result in feedback to the audio amp. I took the speaker apart and wired the speaker direct disconnecting it from the crossover and the problem dissapeared from the vicinity of 7 MHz and 15 Mhz. However... now it appears at about 8.4 Mhz and higher... same symptoms. Another find is that this problem does not exist when listening with phones alone.... just when the 8 Ohm speaker is connected to the db25 out in the rear. Audio is clean with only phones.

I have scoped the audio output test points 16 and 17 as well as the output filter caps and all looks ok there.

Anyone else ever experience this apparent feedback problem ? Think it's a bad audio amp chip ? Any additional suggestions would be appreciated... if I can't find the problem it looks like I'll have to send it back to Gary to check out further..

Regards,

Mike Melland, W9WIS Oshkosh, Wisconsin

- - Michael Melland, W9WIS Winneconne, WI USA

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Date: Fri, 14 Dec 2001 10:52:13 -0500

From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>

Subject: Re: Prem-Rx: Noisy audio on RA6790/GM Hi Mike, Your problem is very strange, since it depends on the frequency of the station you are listening to. If that is indeed the case, then you do not have a problem with your audio circuitry. Any audio stage problems would be quite independent of the frequency to which the radio was tuned.

I suspect that the frequency dependence you have observed is coincidental, and that the problem is truly somewhere in the audio stages. The fact that the headphones work fine is an important clue. Normally, the headphones are connected to the output of the final audio stage, sometimes through a resistor. Your symptom sounds as if the speaker is loading down the output stage at high volume. I'm not familiar with the 6790, but such an effect can occur if you are using a low-efficiency "high fidelity" speaker, which requires more power than the receiver can provide.

One test you could make would be to hook your headphones up to the speaker terminals on the DB25 connector. If the headphones work, but the speaker does not, then you probably don't have any problem with the radio.

Good luck in tracking down the gremlin!

Regards and 73,

Jim Garland W8ZR

At 09:33 AM 12/14/2001, you wrote: > I received some good suggestions in tracking down the audio > problem with my RA6790/GM. But having tried/tested the > suspect areas I still have the noise but have made some > discoveries.

> > 1. When I follow the procedure in the manual to adjust/set > the line level of the main output (screw pot on the front)I > get a slight "crackely" sound in the audio through both the > phones and 8 Ohm speaker output. This may be related to > what I have observed in number 2.





Date: Tue, 18 Dec 2001 18:12:56 -0800  
From: John Reed <jreed@ponca.net>  
Subject: Re: Prem-Rx: RA6793A Daiungoed@aol.com wrote:

>>  
Hi

> Having just got one of these receivers, first let me say how much > I like it, its great fun. The thing that puzzles me is how to tell if > you have the LF or VLF options fitted. Mine tunes down to 000, DC and > picks up several things around 20 to 25 KHz, the manual mentions > changes to a few boards, 1stLO, 2ndLO, ETC, but does not say what they > are. The single EEPROM fitted looks very RACAL to me, not a sticky > labelled copy, I was quite surprised to find a single EEPROM, I was > expecting the three as in the 6790/GM. Any ideas, Dave

**Hi Dave, I have an RA6793A with the VLF option fitted. There's more to it than an EPROM. The big difference is on the first mixer board. On an RA6793A without this option several components on the synthesizer input will be missing. Some of the larger components are: L1, C2, L3, L4. Take a look at your first mixer board and see if these components are installed. If they are you have the factory installed VLF option. If not someone has installed the VLF EPROM so the receiver would tune there, but reception will lack sensitivity starting about 500 KHz and getting worse as you tune down.**

73, John

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Date: Wed, 19 Dec 2001 09:13:48 -0800  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New member: Chuck Dietz (Rockwell 2050) Gentlemen:

Inching toward the 180 member number, Chuck Dietz of Houston, TX is our newest member.

Chuck is a member of the bar (criminal lawyer) and enjoys the sounds of his Rockwell-Collins 2050 which he recently added to his receiver list. He also operates a ICOM 756Pro II. His actual QTH is approximately 20 miles south of Houston so it is relatively (RF wise) quiet.

He admits his first love is contesting with the call W5PR. While 10 M is his band of choice during contests (like last weekend) he is also known to listen to broadcast band DX with his 160M antenna (ed: being a Texan, I assume this is a 1/4 wave vertical?).

Those members of the List that "drive" 2050s may want to give Chuck an E-Mail ( Logan Dietz [cdietz@swbell.net] ) and tell him about the solutions to the 2050 heater problems.

Greg

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Date: Wed, 19 Dec 2001 11:56:25 -0600  
From: Turkisher Dan-CSLC82 <Dan.Turkisher@motorola.com>  
Subject: Prem-Rx: SP-600 HELP Hello group.....

I have an SP-600 (a J11, I think) which works well on the lower frequencies, but when the bandswitch takes it to 7.4-14.8, 14.8-29.7, and 29.7-54.0, it is dead. Well, almost dead...if I pump 50dBm RF from a generator, some weak signal comes through, but that's about it.

The manual/schematic I have (JX) does not exactly match the receiver: a) Schematic shows V8 as 6C4 double conversion osc but the tube in V8 is a 12AU7. This appears to be factory built based on labeling on the chassis. b) The receiver is missing the can that surrounds the "oscillator terminal board" ...does anyone have ones of these available??? I doubt the absence of the shielding is the root of my problem??? c) There are other tube substitutions: V4 is a 6J6, V5 is a 5750, V6 is a 5750, V7 is a 6BZ6. There may some other subs, but these are around the area I suspect to be the source of trouble. I am not sure if other components have been changed for these tube substitutions, so I am not very

comfortable putting back the original "stock" tubes until I know what is going on. d) The receiver appears to have the Chuck Rippel "Qucik & Dirty Sp-600 Audio Modifications" date circa 1999. I might add that the RX operates and sounds super on the lower (single conversion?) RF bands. Basically all receptions ends > 7.4 Mhz.

Going above 7.4 Mhz this receiver should switch to double conversion (via V8). The wafer switch which runs off the band switch drum does seem to make proper contact, but no joy. I have sprayed Dexoit on all contacts and believe all switches to be OK.

I think the double conversion oscillator is not kicking in, but can't explain why strong RF from the generator yields audio thru the RF and detector stages.

Can anyone help me identify these tube substitutions, and give any hints as to what might be ailing this receiver? I sense the problem is basic but cannot make any breakthroughs.

Thanks and 73 Dan KODAN

PS Am about to change my I.S.P., and may temporarily drop off this reflector....Please email to k0dan@home.com

-----  
Date: Wed, 19 Dec 2001 15:11:48 -0500  
From: Al Klase <skywaves@bw.webex.net>  
Subject: Re: Prem-Rx: SP-600 HELP Dan and the Group,

I hope this hollow-state stuff is not considered off topic here. The SP-600 was certainly "Premium" when built.

Are you aware of the Black-Uglies problem? The earlier receivers, probably the bulk of the production, were built with paper tubular capacitors. One brand was "Black Beauties". In any event they've all got to come out or you'll be chasing your tail for a long time. There's some general info in the "Communications Receiver" section of my webpage that, among other things, will show you the easy way to replace caps.

If it's a J-11 it should be missing the "XTALS" knob on the upper right front panel. That could also mean it's a latter model the J-22. Details are sketchy, and most of the documentation floating around is pretty early and pretty generic.

A) 12AU7 = two 6C4's so I wouldn't be too worried, but you do clearly have a bug in the double conversion mode.

C) RE: V4: Is it labeled 6J6? I'd expect it to be a 6C4. RE: V5 & V6: 5750's are high-rel 6BE6's i.e. no problem. RE: V7: Strange should be a 6BA6. 6BZ6 is sort of a valid sub.

The right way to trouble shoot is to compare the voltages on the tube pins to the chart in the manual. This might be tough on this radio without the proper socket extender.

The whole procedure is: Signal trace to the bad stage. (You've effectively done that.) Make voltage measurements to find the bad circuit. (E.g. low screen-grid voltage.) And then, make resistance measurements to find the bad components. (E.g., an open screen resistor burned up by a shorted screen-bypass cap.)

Again, all the paper cap are suspect.

The good news is that these sets are serviceable by mere mortals, unlike some of their solid-state brethren.

Regards, Al

- - Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

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Date: Thu, 20 Dec 2001 00:01:54 -0600  
From: "Bob Parnass, AJ9S" <parnass@megsinet.net>  
Subject: Prem-Rx: tk545, free software to control NRD-545 from Win98 or Linux I wrote tk545, a new computer program which lets you:

- (1) Control the NRD-545 from my computer.
- (2) download/upload the radio's memory channels from/to a csv (comma-separated values) file.

tk545 provides 1 Hz resolution (vs. the 10 Hz shown on the radio's front panel). It lets you easily adjust the DSP, Line Enhance, and Beat Canceler parameters while listening to signals. These parameters are buried within the NRD-545's menus and are otherwise difficult to tweak when using the radio's front panel.

Though I've all but abandoned Windows 98 in favor of free Linux, I wrote tk545 in a language (tcl/tk) which permits it run on either operating system. It may even run on Macs, Solaris, and other environments, but I've only tested it on Linux and Windows 98.

You can read about and download a beta test version of tk545 From my home page:  
<http://members.core.com/~parnass>

I don't warrant the software, but it won't cost you anything. - --

=====  
===== Bob Parnass, AJ9S parnass@megsinet.net Linux  
user

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Date: Fri, 21 Dec 2001 19:26:38 +0100  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: The end of a year Greetings to all,

I couldn't let the year end without sending greetings from the UK to all the readers of the column. I'm going to spend the next few days investigating an idea which appeared some time ago regarding broadband noise techniques for single measurements on HF receivers. I just bought a Wandel & Goltermann broadband system noise test set (for peanuts) and will bring back happy memories of my time with Marconi sitting in a telecoms centre at midnight sending noise limited signals to my colleagues 1000 miles away up in the North of Nigeria. The technique may be old, but it should still work today. I'll let you know.

I'll raise my glass to all premium enthusiasts at 23.59 hours on the 31st of December. I hope you will do the same. 73

John Wilson

----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

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End of premium-rx-digest V1 #168 \*\*\*\*\*  
Subject: premium-rx-digest V1 #169  
premium-rx-digest Saturday, December 29 2001 Volume 01 : Number 169

----- Date: Fri, 21 Dec 2001 15:12:06 EST  
From: Llqpt@aol.com





rig onboard as the ship was being stripped to be sunk as a wreck and scuba diving destination. At the time all the equipment (electronic and otherwise) was being removed and dumped into a barge alongside destined for a scrap yard. I rescued the radio with the intention of attempting to rebuild this vintage rig. Ultimately though the damage was too much for my limited technical abilities so this rig will never again listen to the shrill bursts of Morse or the soaring heterodynes of SSB. This radio now has a new career. It has been joined by an AN/URR-35 UHF receiver (also a naval veteran), an anonymous marine VHF rig, two pair of headphones and some microphones to become 'Mission Control' in my wife's grade one class. Here it thrills the imaginations of seven year olds with a host of switches, dials, knobs and plugs as they control yet another mission into space. Other radios would just fade away but this premium receiver will continue in action for many a year to come.

Just in case anyone thinks the RCN is still using tube gear, HMCS Chaudiere went into reserve in 1974 but was a special case because (I'm not sure of the exact story) she was being used for spares after having part of her bow removed to repair a sister ship involved in a grounding or collision. It would appear that much of the radio gear was the original equipment from when she was commissioned. I did see some reference to R-1051 receivers onboard though although none were in evidence.

To see photos of the ship try [http://www.porpoisebaycharters.com/hmcs\\_chaudiere.htm](http://www.porpoisebaycharters.com/hmcs_chaudiere.htm) or [http://www.artificialreef.bc.ca/dive\\_sites/235\\_chaudiere.html](http://www.artificialreef.bc.ca/dive_sites/235_chaudiere.html). For me it was the ultimate 'toys for boys' to explore the ship prior to her being stripped completely. There was no power on board and everywhere it was totally pitch dark. Two flashlights were mandatory and it was possible to explore from stem to stern.

Cheers and Merry Christmas to all

Chris Anton ve7top

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Date: Sat, 29 Dec 2001 13:19:39 -0500

From: michael j brown <piggin@mindspring.com>

Subject: Prem-Rx: premium-rx 'phones update I added a HD 265 Linear headset from sennheiser to the arsenal here and I thought it could be interesting to some of the list members. The senns are superb. This is interesting given some of the poor audiophile reviews I have seen on this model. I find their frequency response to be flat and the detail to be truly incredible. On CDs I have had for years, they revealed things no other set of phones did. They are a closed design, circumaural, and are pretty light. Of all the phones I own, they win in the comfort dept hands down. One niggle....the leads go to both sides. I prefer one line on the left. For SSB they are fabulous...if you have good audio! One other thing I noticed. On longwave broadcast stations, the bass response helped a lot to improve the readability of the signal. With other phones, the bass just muddied things up. These are the 'phones I have been looking for.....I wont be getting any more!! I strongly recommend them. some caveats....they are 150 ohms, and are very sensitive, so some provision to reduce level to them may be needed with some rigs. So sensitive in fact that using a microwave oven transformer with the secondary on my longwire and ground and the senns on the primary, sferics are nice and loud....no audio amp needed!! If your radio's audio has lots of distortion, these phones will present it to you nicely. This may change the way you perceive some rigs!! I found the APF on my R-8500 introduces distortion...so I dont use it much anymore except for CW. On the brightside, SSB sounds wonderful without it. Activity on 11175 USB has never been clearer. Yokota AFB was clear and easy recently, a first for this post!! I hope some of you find this information usefull. If so, drop me a line! And happy New Year!

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**End of premium-rx-digest V1 #169 \*\*\*\*\***

**Subject: premium-rx-digest V1 #170**

**premium-rx-digest Sunday, January 6 2002 Volume 01 : Number 170**  
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----- Date: Sun, 30 Dec 2001 11:05:14 -0500

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: Prem-Rx: hi All, My 2 week Christmas vacation allowed some radio R&D time. I made two RA6830 modifications for a unit with the linear power supply. 1. Relocated the front panel voltage regulator to the chassis side wall. I removed the TO3 device and added three wires about three inches long to a TO220 device attached by replacing the bottom 4-440 screw on the cable side shield with a longer screw. I then attached the regulator using a #6 split lock washer to fit over the back of the pem nut. Over that I placed a #4 flat washer and nut. The temperature rise was reduced to just above room temperature. The linear power supply drives the regulator with 10.7 volts while the switcher is regulated to 8 volts. This is a no hack change that will work with either power supply. 2. The linear power supply does not regulate the 8 volt drive to the front panel or the synthesizer. I wanted to reduce the ripple on the synthesizer internal 5.2 volt supply because it was modulating the loop. I removed L6 filter choke on the synthesizer module. Then I mounted a 7808 TO220 under the lower right mounting screw on the open area of the A1 board. I installed a ground lug on under the screw also. I then installed a 10 uF cap at the regulator input and a reverse protection diode between the input and output. The regulator was wired into the L6 holes in the PC board. The unregulated input voltage has 1/2 volt of ripple on it so my plan was to clean it up. The A5 module was installed in the radio carefully avoiding the reference cable as it has to go by the new voltage regulator sliding into the chassis. The final test was to connect the signal generator. I could hear a good signal at minus 130 dBm with a narrow filter. I next increased the signal to minus 30 dBm and tuned around looking for side band 120 Hz. responses. Result was, in the mud. The stock synthesizer with the linear power supply had problems above minus 45 dBm. I measured the synthesizer 120 hz side bands at minus 62 dBC improved from minus 45 dBC. The switcher power supply does not have low frequency noise on the outputs so this change may not help things. There is some high frequency noise but it is pretty low level. The front panel regulator runs a little warm but if another small heat sink is piggy backed over the stock one the temperature is fine. I removed the regulator screws and replaced them with longer ones. I installed them facing to the rear with flat washers under the heads. I used 3/8 threaded stand offs to attach the regulator flange. Next I placed a second heat sink over the screws and attached it with the lock nuts. This doubles the heat sink area and works fine with the switcher but still too hot using the linear. fc

-----  
Date: Sun, 6 Jan 2002 23:13:57 +0400

From: "LEBON Jean Philippe" <JEAN-PHILIPPE.LEBON@wanadoo.fr>

Subject: Prem-Rx: jrc nrd 92 / ncm 515

- -----= \_NextPart\_000\_0008\_01C19707.D18F9DE0

i am about to buy a jrc nrd 92 and i already own a jrc nrd 515 connected = to the following accessory : ncm 515 frequency controller ( keyboard to = enter frequency ) . can everybody tell me if this ncm 515 also matches a nrd 92 ? any = modification needed ? at last , any comment about nrd 92 ? i thank you = in advance . jean philippe .

- -----= \_NextPart\_000\_0008\_01C19707.D18F9DE0

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML><HEAD>
<META content= 3D"text/html; charset= 3Diso-8859-1" = http-equiv= 3DContent-Type> <META
content= 3D"MSHTML 5.00.2614.3500" name= 3DGENERATOR> <STYLE></STYLE>
</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2>i am about to
buy a jrc nrd 92 and i = already own a jrc nrd 515 connected to the following accessory : ncm 515
frequency = controller (&nbsp; keyboard to enter frequency ) . </FONT></DIV> <DIV><FONT
face= 3DArial size= 3D2>can everybody tell me if this ncm 515 = also matches a nrd 92 ? any
modification needed ? at last , any comment about nrd 92 = ? i thank you in advance . jean philippe
.</FONT></DIV></BODY></HTML>
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Subject: Re: Prem-Rx: jrc nrd 92 / ncm 515 > can everybody tell me if this ncm 515 also matches a nrd 92 ? any modification > needed ? at last , any comment about nrd 92 ? i thank you in advance . jean > philippe .

Hello Jean Phillipe

I also have an NRD92 and a NRD515 (pictures enclosed) but the NCM 515 didn work with the NRD92, the only one which works fine with the NRD92 is the Sherwood SE-3 Synch. It works VERY fine with this beautiful receiver.

Greetings from Salzburg, Austria

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Date: Sun, 6 Jan 2002 16:32:25 -0500  
From: "Walt Novinger" <wnovinger@nc.rr.com>  
Subject: Re: Prem-Rx: jrc nrd 92 / ncm 515 Les is correct...the frequency controller will work with no other radios. It was made specifically for the 515.

Walt Novinger Raleigh, NC wnovinger@nc.rr.com - ----- Original Message -----

From: <Llgpt@aol.com> To: <JEAN-PHILIPPE.LEBON@wanadoo.fr> ; <premium-rx@kahuna.sdsu.edu> Sent: Sunday, January 06, 2002 2:13 PM

Subject: Re: Prem-Rx: jrc nrd 92 / ncm 515

> > In a message dated 01/06/02 1:08:06 PM, JEAN-PHILIPPE.LEBON@wanadoo.fr writes:  
> > << am about to buy a jrc nrd 92 and i already own a jrc nrd 515 connected to > the following accessory : ncm 515 frequency controller ( keyboard to enter > frequency ) .  
> > can everybody tell me if this ncm 515 also matches a nrd 92 ? any > modification needed ? at last , any comment about nrd 92 ? i thank you in > advance . jean philippe . >  
> > >

Hi

> > One might be able to modify it, but it was not/is not designed to work with > the NRD-92.  
> > I know of no other product that JRC manufactures that the NCM-515 Frequency > Controller works with. Anybody else have experience with this product?  
> > > > > Les Locklear > Gulfport, MS.

-----  
Date: Sun, 6 Jan 2002 17:10:17 -0500 (EST)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: jrc nrd 92 / ncm 515 Hi All,

Happy New Year to All. If you want to use a given controller with a device with other control codes you might consider building a converter using a "Basic Stamp" or equivalent. These are small processors with clever relatively simple code and equally clever I/O pin and peripheral hardware.

The "Stamp" sits in the middle of the serial (or parallel) line and outputs whatever in response to whatever else. If you lack the time or inclination, it should be possible to get an engineering student familiar with "Basic Stamps" to build one for a modest fee.

Clearly, life is easier if you have a clear and correct definition of all codes involved.

See [www.parallaxinc.com](http://www.parallaxinc.com) for the original or [www.basicx.com](http://www.basicx.com) for something a little heavier. I have put the latter products in undersea robots with good results.

If desired, there are many other interesting features that could be added to this project.

GL es 73

Steve Stutman

KL7JT/1

Boston

On Sun, 6 Jan 2002, LEBON Jean Philippe wrote:

> i am about to buy a jrc nrd 92 and i already own a jrc nrd 515 connected to the following accessory : ncm 515 frequency controller ( keyboard to enter frequency ) . > can everybody tell me if this ncm 515 also matches a nrd 92 ? any modification needed ? at last , any comment about nrd 92 ? i thank you in advance . jean philippe . >

-----  
Date: Sun, 6 Jan 2002 17:32:38 -0500

From: "David Clark" <davidclark@home.com>

Subject: Re: Prem-Rx: jrc nrd 92 / ncm 515 Walt is correct. The NCM-515 was designed specifically to interface to the NRD-515. There is more about this on pg 465 of Fred Osterman's book, Shortwave Receivers - Past & Present (3rd edition). Fred mentions that the frequency controller is a scarce and collectable item. My understanding from JRC sources (via Fred) is that only some 350 units were ever built between 1982 and 1984. I count myself very fortunate to have two of them, one of which was acquired in a package '515' deal from Walt himself some years ago!

I have been inactive from the list of late so I'm taking this opportunity to extend greetings and best wishes for 2002 to everyone.

/dave

- ----- Original Message -----

From: "Walt Novinger" <wnovinger@nc.rr.com> To: <Llgpt@aol.com> ; <JEAN-PHILIPPE.LEBON@wanadoo.fr> ; <premium-rx@kahuna.sdsu.edu> Sent: Sunday, January 06, 2002 4:32 PM

Subject: Re: Prem-Rx: jrc nrd 92 / ncm 515

> Les is correct...the frequency controller will work with no other radios. It > was made specifically for the 515.

> > Walt Novinger > Raleigh, NC > wnovinger@nc.rr.com > ----- Original Message ----- >

From: <Llgpt@aol.com>

> > To: <JEAN-PHILIPPE.LEBON@wanadoo.fr> ; <premium-rx@kahuna.sdsu.edu>

> > Sent: Sunday, January 06, 2002 2:13 PM >

Subject: Re: Prem-Rx: jrc nrd 92 / ncm 515

> > > > > In a message dated 01/06/02 1:08:06 PM, JEAN-PHILIPPE.LEBON@wanadoo.fr > writes:

> > > > << am about to buy a jrc nrd 92 and i already own a jrc nrd 515 connected > to

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> > frequency ) .

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> > modification needed ? at last , any comment about nrd 92 ? i thank you in  
> > advance . jean philippe . >  
> > > > >

Hi

> > > > One might be able to modify it, but it was not/is not designed to work > with  
> > the NRD-92.  
> > > > I know of no other product that JRC manufactures that the NCM-515 > Frequency  
> > Controller works with. Anybody else have experience with this product?  
> > > > > > > >  
> > Les Locklear  
> > Gulfport, MS. >

-----  
Date: Wed, 9 Jan 2002 11:23:54 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: RA6830 IF noise hi All, I found another source of noise in the RA6830 455 kHz IF chain. I noticed an instability while tuning up a radio when one of the 455 kHz filters was selected. Bit would pass but the weak signal performance was off by 15 dB. First I thought I had a bad filter because it was only one of the five. Next I thought it was a bad diode in the switching. Then the bypass caps in the emitter follower. Well, after a couple trips around the block I found an easy way to tame the whole thing. I put a 560 ohm resistor across the J3 output connector and everything is tame. I have not tried any other values except 4.7 kohms that didn't work. I now easily hear a signal at minus 130 dBm but have not measured MDS yet. The A10 J3 filter board feeds a UA757 IF amplifier on A9. There seems to be interaction between the A10 emitter follower and the high input impedance of the UA757. fc

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Date: Fri, 11 Jan 2002 06:07:44 -0800  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: Norlin or Applied Communications Info wanted-

- -----= \_NextPart\_000\_001C\_01C19A66.492FDDE0

Premium-Rx@Engineering.SDSU.Edu

Gentlemen:

I have been contacted by Robert Melville (WB3EFT) who needs information = on a SR-2020. This radio was manufactured by Applied Communications who = also produced the Norlin line of receivers. If I remember correctly, = one of our members has a Norlin surveillance radio.

If you have any information would you could contact Bob at: = rcm@agere.com or give me a blast and I will forward the information.

Thanks-

Greg

P.S. Member Jan Skirrow of B.C. Canada has been a guest of mine this = past week. We visited a few of the local electronic wrecking yards, as = well as Murphy's junk emporium. Besides enjoying a week in the warmth = of So. CA. we destroyed a few bottles of the California "grape", and = restored a linear that member Ben Wallace and I bought some 3 years ago. = It was a grand week!



Subject: Prem-Rx: Need Rohde & Schwartz ESH2 Information I'm looking for information on the Rohde & Schwartz ESH2 Test Receiver. Does anyone have or know where to obtain an operator's manual, service manual, literature or any documentation? Thanks & 73, -Paul W8ZO . . .

-----  
Date: Sat, 12 Jan 2002 22:45:06 +0100  
From: Vittorio De Tomasi <ik2czl@amsat.org>  
Subject: Re: Prem-Rx: Need Rohde & Schwartz ESH2 Information PKluwe@aol.com wrote:

>> I'm looking for information on the Rohde & Schwartz ESH2 Test Receiver. Does > anyone have or know where to obtain an operator's manual, service manual, > literature or any documentation? Thanks & 73, -Paul W8ZO > .. > .. > ..

**Helmut Singer Elektronik (www.helmut-singer.de) has the ESH-2 for sale, and can deliver more information upon request. Photo and a brief description of ESH-2 are here: <http://www.helmut-singer.de/stock/-1099136207.html>**

vy 73

Vittorio ik2czl

\_ \_ \_ \*\*\*\*\*

Vittorio De Tomasi ik2czl@amsat.org <http://www.weaksignals.com>

"Sometimes things just don't make sense, and that's just the way it is. Live with it. More tea?" - Richard Feynman

-----  
Date: Sun, 13 Jan 2002 09:23:03 -0000  
From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: Rohde & Schwartz ESH2 Hello Vittorio

The ESH-2 that Helmut Singer Elektronik has for sale must be a pretty deaf receiver as their web site states that it has a "Measuring range of -30...+ 137 dBµV" :-)

Tracey

> (www.helmut-singer.de) has the ESH-2 for sale, > and can deliver more information upon request.  
> Photo and a brief description of ESH-2 are here: > <http://www.helmut-singer.de/stock/-1099136207.html> >

-----  
Date: Sun, 13 Jan 2002 20:56:05 +0100  
From: Vittorio De Tomasi <ik2czl@amsat.org>  
Subject: Re: Prem-Rx: Rohde & Schwartz ESH2 Not exactly: you can get +30...-137 dBµV measuring range, but the ESH-2 must be installed upside-down... ;-)

Vittorio

Tracey Gardner wrote:

> > Hello Vittorio

> > The ESH-2 that Helmut Singer Elektronik has for sale must be a > pretty deaf receiver as their web site states that it has a > "Measuring range of -30...+ 137 dBµV" :-)

> > Tracey

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> > and can deliver more information upon request.  
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> > <http://www.helmut-singer.de/stock/-1099136207.html>  
> >

\_ \_ \_ \*\*\*\*\*  
Vittorio De Tomasi ik2czl@amsat.org <http://www.weaksignals.com>

"Sometimes things just don't make sense, and that's just the way it is. Live with it. More tea?" -  
Richard Feynman

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End of premium-rx-digest V1 #171 \*\*\*\*\*  
Subject: premium-rx-digest V1 #172  
premium-rx-digest Sunday, January 20 2002 Volume 01 : Number 172  
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----- Date: Sun, 13 Jan 2002 20:59:29 -0500  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>  
Subject: RE: Prem-Rx: Rohde & Schwartz ESH2 > The ESH-2 that Helmut Singer Elektronik has for sale must be a > pretty deaf receiver as their web site states that it has a > "Measuring range of -30...+137 dBuV" :-)

Keep in mind that this is not meant to be a shortwave receiver in the normal sense - it is a piece of test equipment after all. That being said, I don't think that -137 dBm (-30 dBuV for a 50 ohm system) is all that bad... :-)

Michael Tracy, KC1SX

-----  
Date: Sun, 13 Jan 2002 22:31:58 EST  
From: DAVEI NBHAM@aol.com  
Subject: Prem-Rx: Panadaptor output from RA6790/GM Has anyone out there hooked a RA6790/GM to a panoramic scope ( Panadaptor ) ? If you have, I would like to know how you did it.

If I have to do this from scratch, I will start by coming off TP3 on board A3 and through a buffer amplifier to the outside world.

Also, does anyone have a part number ( preferably Digi-Key or Mouser as I gotta order stuff from them this week for another project ) for the miniature jacks on the PC cards that connect to the various mini coax cables in the radio. I want to unplug the cable presently going from card A4 to IF out on the rear aporn and plug it into the jack that will be on the buffer amplifier card I will make .

Hopefully, I will get time to build this week after next.

Kindest regards, Dave

-----  
Date: Sun, 13 Jan 2002 19:41:30 -0800  
From: "refmon" <monitor@referencevideo.com>  
Subject: Prem-Rx: Re: [Racal] Panadaptor output from RA6790/GM

Hi

Can't testify directly to the pan-adapter portion of the question, but may be able to help with cable/connectors. You need SMB males, as I recall...I don't have a receiver at hand at the moment,

but-depending on what you do for a buffer amp, a prefabricated cable might be worth it...even if you need coax pigtailed at your buffer amp, a prefab might help. Try kmec@aol.com on ebay...look carefully-he often has SMB male to SMA male cables in the 6 inch category. I use them throughout the receivers as adapter-jumpers to test gear.

hope this helped

regards to all

John Collins \_\_\_\_\_

- ----- Original Message -----

From: <DAVEINBHAM@aol.com> To: <Premium-RX@kahuna.sdsu.edu>;  
<racal@mailman.qth.net> Sent: Sunday, January 13, 2002 07:31 PM

Subject: [Racal] Panadaptor output from RA6790/GM

> Has anyone out there hooked a RA6790/GM to a panoramic scope ( Panadaptor ) ? > If you have, I would like to know how you did it.

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> > Hopefully, I will get time to build this week after next.

> > Kindest regards, > Dave > \_\_\_\_\_ >  
RACAL mailing list > RACAL@mailman.qth.net > <http://mailman.qth.net/mailman/listinfo/racal>

> >

-----  
Date: Mon, 14 Jan 2002 00:21:22 -0500 (EST)

From: Paul Bernhardt <bern@ppdmail.nrl.navy.mil>

Subject: RE: Prem-Rx: Rohde & Schwartz ESH2 I have an ESH2 made under contract to Rohde & Schwartz. I don't have a manual. I was suprised at the quality of the audio. I seems to be plenty sensitive for short wave listening. Cheers, Paul Bernhardt

Work:PA. Bernhardt Home: Paul Bernhardt, KF4FOR Code 6794 5704 Ridge View Dr. Naval Research Laboratory Alexandria, VA 22310 Washington, DC 20375 Tel: 202-767-0196 703-960-9656 FAX: 202-767-0631

On Sun, 13 Jan 2002, Tracy, Michael, KC1SX wrote:

> > The ESH-2 that Helmut Singer Elektronik has for sale must be a

> > pretty deaf receiver as their web site states that it has a

> > "Measuring range of -30...+ 137 dBµV" :-)

> > Keep in mind that this is not meant to be a shortwave receiver in the normal > sense - it is a piece of test equipment after all. That being said, I don't > think that -137 dBm (-30 dBuV for a 50 ohm system) is all \_that\_ bad... :-)

> > Michael Tracy, KC1SX >

Date: Mon, 14 Jan 2002 08:11:00 -0500  
From: Al Klase <skywaves@bw.webex.net>  
Subject: Prem-Rx: Re: [Racal] Panadaptor output from RA6790/GM Hi Dave,

No direct experience, but A3/TP3 is downstream from the 20KHz wide 40.455MHz roofing filters on both A2 and A3. Should work OK but the bandwidth will be limited.

Al

DAVEINBHAM@aol.com wrote:

> > Has anyone out there hooked a RA6790/GM to a panoramic scope ( Panadaptor ) ? > If you have, I would like to know how you did it.

> > If I have to do this from scratch, I will start by coming off TP3 on board A3 > and through a buffer amplifier to the outside world. >

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

-----  
Date: Mon, 14 Jan 2002 12:15:56 -0800  
From: jmcvein@teleport.com  
Subject: Re: Prem-Rx: Panadaptor output from RA6790/GM

From: DAVEINBHAM@aol.com Date sent: Sun, 13 Jan 2002 22:31:58 EST  
Subject: Prem-Rx: Panadaptor output from RA6790/GM To: Premium-RX@kahuna.sdsu.edu,  
racal@mailman.qth.net

> Has anyone out there hooked a RA6790/GM to a panoramic scope ( > Panadaptor ) ? If you have, I would like to know how you did it.

> > If I have to do this from scratch, I will start by coming off TP3 on > board A3 and through a buffer amplifier to the outside world.

> > Also, does anyone have a part number ( preferably Digi-Key or Mouser > as I gotta order stuff from them this week for another project ) for > the miniature jacks on the PC cards that connect to the various mini > coax cables in the radio. I want to unplug the cable presently going > from card A4 to IF out on the rear aporn and plug it into the jack > that will be on the buffer amplifier card I will make .

> > Hopefully, I will get time to build this week after next.

> > Kindest regards, > Dave

Use the other output on U4 MC1733 Amp. A 1k resistor from pin 7, a 51 ohm to ground from the 1k, then a .1uF cap to your connector From the 1k-51ohm node. Works for me, BW limited by the roofing filter. I am using a WJ-9188A Monitor.

Jim McVein

-----  
Date: Mon, 14 Jan 2002 16:16:54 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Panadaptor output from RA6790/GM The SMB connector is common. Digi Key sells them for around \$5 each. The crimp type can be soldered if you don't have the tool. Use the gold plated parts as they solder better than nickle finish. Racal used double shielded coax in the 6830 so maybe the 6790 used the same stuff. I don't know of a source. Maybe Gary Wingerd has some spare cables around to save you the trouble. I think he told me there was a converter board



that upconverted to 21.4 MHz. It would be worth asking him about to get a real module for your radio. fc

> -----Original Message----- >

From: jmcvein@teleport.com [SMTP:jmcvein@teleport.com] > Sent: Monday, January 14, 2002 3:16 PM > To: DAVEINBHAM@aol.com > Cc: premium-rx@kahuna.sdsu.edu >

Subject: Re: Prem-Rx: Panadaptor output from RA6790/GM

> >

From: DAVEINBHAM@aol.com > Date sent: Sun, 13 Jan 2002 22:31:58 EST >

Subject: Prem-Rx: Panadaptor output from RA6790/GM > To: Premium-RX@kahuna.sdsu.edu, racal@mailman.qth.net

> > > Has anyone out there hooked a RA6790/GM to a panoramic scope (

> > Panadaptor ) ? If you have, I would like to know how you did it.

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> > Jim McVein >

-----  
Date: Sun, 20 Jan 2002 15:40:13 -0000

From: "j.tansley" <j.tansley@btinternet.com>

Subject: Prem-Rx: WJ 8888

- -----=\_NextPart\_000\_0040\_01C1A1C8.C07C7E80

Guys, does anybody know of, or have access to, a net /emailable source = of a block diagram for the synth for this set. Being a Brit the synth is = not as obvious as some of the typical Brit stuff like the Plessy's and = Racal's. Also not too enamoured with the board numbering but no = description, that would help too please.

Just in case it is a common / obvious fault the symptoms are : no = reception above 11 MHz, VFO frequency jumps at some of the 100KHz = changes and the frequency readout is wholly inaccurate to the reception, = appears to be the wrong info getting to the VFO as far as I can make = out??









Subject: Prem-Rx: W&J 8616

>

Hi

> Can anyone help me?? I have just got one of these receivers, and am > trying everywhere for a manual, but in the meantime, I have one problem with > it. When it was plumbed in, everything works fine except the 'phones volume > knob, which is really noisy, and spoils listening. No problem, I thought, > pull out the pot, and find something around the right size, shoehorn it in, > and off we go, except that on dismantling, it seems to be a double pot, which > is probably unobtainable. Does anyone know where I can get one, or can > someone tell me why it is a double pot, the only thing I can think of is that > there are two 'phone sockets, maybe one half of the pot for each?? Any ideas > gratefully received, Dave >

-----  
Date: Thu, 24 Jan 2002 20:23:12 -0700  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: RE: Prem-Rx: Computer control of radios Jon,

Check out [www.visualradios.com](http://www.visualradios.com) (software by Colin Trass). I am controlling a 6790/GM via serial and an RA1792 via GPIB using VRadio 4.2.

Shaun

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Jon Iza Sent: January 23, 2002 23:45 To: Premium-RX@kahuna.sdsu.edu

Subject: Prem-Rx: Computer control of radios

Folks I kinda remember there was on the list some comments regarding a computer control software which was getting developed targeting "our kind of radios". I was aiming to software for a R&S EK070... as well as others Does anybody have a clue or hint? Be well jon, ea2sn

-----  
Date: Thu, 24 Jan 2002 21:58:11 -0600  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: Cleaning pots in WJ-8616 I haven't seen an 8616, but it is in the 8615-8617 line. The receivers I have seen in that line all use Allen Bradley "mod" pots for the volume and level controls. Mod pots (as in modular) are notorious for wearing out the relatively thin resistance element. Worse yet, they are assembled with no gaps to allow cleaner to be squirted or dropped in without disassembly.

I have a sketch somewhere of an acceptable point to carefully drill a 1/16" or smaller hole to allow cleaner inside. The downside is you have to drop the front panels to get at the pot. If the pot is only moderately noisy, it will work. (and once the hole is drilled, you can squirt the pot again without dropping the front panel)

If the pot has substantial noise, bordering on drop outs in certain positions, cleaning is a lost cause. In that case you can very carefully apply Lock-Ease graphite lock lubricate to extend the life for a while, but only as a desperation measure.

Replacing the mod-pot is your best recourse, except that Allen Bradley no longer manufactures them. I end up salvaging them from other equipment. They are modular, so if you find the right element, you can disassemble it and graft the resistance element parts onto your existing shaft assembly.

Best, Terry O'

-----  
Date: Thu, 24 Jan 2002 21:53:56 -0800

From: "Don Nelson" <ulformat@teleport.com>

Subject: Re: Prem-Rx: W&J 8616 Mike Take a look at radioshack.com under Resistors->linear taper. they have quite a few. I've never tried this source so your mileage may vary They stock a line made by XICON. A quick check of Allied database turned up two listings under Potentiometer Dual, 753-8061 for 10K and 753-8059 for 5K

Mouser also stocks the XICON line, but quite a wider selection: Mouser Stock No. Description Mfg Stock No. Stock Status 313-2420-100K XICON/ALPHA 24mm CARBON POTENTIOMETERS dual 24mm a100k 313-2420-100K In Stock 313-2420-10K XICON/ALPHA 24mm CARBON POTENTIOMETERS dual 24mm a10k 313-2420-10K In Stock 313-2420-1M XICON/ALPHA 24mm CARBON POTENTIOMETERS dual 24mm a1m 313-2420-1M In Stock 313-2420-1K XICON/ALPHA 24mm CARBON POTENTIOMETERS dual 24mm a1k 313-2420-1K In Stock 313-2420-250K XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 250ka 313-2420-250K In Stock 313-2420-50K XICON/ALPHA 24mm CARBON POTENTIOMETERS dual 24mm a50k 313-2420-50K In Stock 313-2420-500K XICON/ALPHA 24mm CARBON POTENTIOMETERS dual 24mm a500k 313-2420-500K In Stock 313-2420-5K XICON/ALPHA 24mm CARBON POTENTIOMETERS dual 24mm a5k 313-2420-5K In Stock 316-1020-100K XICON/ALPHA DUAL GANGED MOTOR DRIVEN POTENTIOMETERS box w/mtr/gear b100k 316-1020-100K In Stock 316-1020-10K XICON/ALPHA DUAL GANGED MOTOR DRIVEN POTENTIOMETERS box w/mtr/gear b10k 316-1020-10K In Stock 316-1020-50K XICON/ALPHA DUAL GANGED MOTOR DRIVEN POTENTIOMETERS box w/mtr/gear b50k 316-1020-50K In Stock 31VW205 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot b500 31VW205 In Stock 31VW305 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 5kb 31VW305 In Stock 31VW301 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 1kb 31VW301 In Stock 31VW401 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 10kb 31VW401 In Stock 31VW405 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 50kb 31VW405 In Stock 31VW501 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 100kb 31VW501 In Stock 31VW503 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 250kb 31VW503 In Stock 31VW505 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 500kb 31VW505 In Stock 31VW601 XICON/ALPHA 24mm CARBON POTENTIOMETERS dual pot 1megb 31VW601 In Stock 531-PC16DC1A-1K PIHER POTENTIOMETERS dual 1k w/sw PC16DH07CP06102A2020I 531-PC16DH7-10K PIHER POTENTIOMETERS 10k dual vert mt wht PC16DH07IP06-103A2020-TA 531-PC16DHI-10K PIHER POTENTIOMETERS 10k dual vert mt wht PC16DH07IP06103A2020 In Stock 531-T16THB-1K PIHER POTENTIOMETERS dual 1k audio tap T16THM07N-102B2020-200TA 652-81N2D-E20-E17 BOURNS PANEL MOUNT POTENTIOMETERS 5/8" sq dual 25k 81N2D-E20-E20-E17/E17

Don Nelson Oregon

- ----- Original Message -----

From: "mikea" <mikea@mikea.ath.cx> To: <Daiungoed@aol.com> Cc: <premium-rx@kahuna.sdsu.edu> Sent: Thursday, January 24, 2002 10:57 AM

Subject: Re: Prem-Rx: W&J 8616

On Thu, Jan 24, 2002 at 01:46:03PM -0500, Daiungoed@aol.com wrote: >

Hi

> Can anyone help me?? I have just got one of these receivers, and am > trying everywhere for a manual, but in the meantime, I have one problem with > it. When it was plumbed in, everything works fine except the 'phones volume > knob, which is really noisy, and spoils listening. No problem, I thought, > pull out the pot, and find something around the right size, shoehorn it in, > and off we





the digital noise, but the problem was irritating enough to me to want to do something about it. The source of the noise is the +/- 15 VDC power lines feeding the head phone amp MC3403 reference designator U1, located on the lower front panel PC board right next to the head phone jack. Putting a scope on the power pins (4 & 11) on U1 clearly showed significantly more digital noise than on the +/- 15 VDC power feed thrus on the chassis about an inch away from the amp. WJ decided to run this power through some long PC board tracks and through a ribbon cable to one of the digital boards and got the power at the digital board rather than springing for a 2 pin connector that could have connected the amp to a clean source of DC less than an inch away. The only attempt at cleaning up this noise is a .01 cap (C1) between the + and - rails on U1, no cap to ground. The fix is to provide a bypass to ground. The .01 cap (C1) that ties the two rails on U1 together AC wise means that it is only necessary to connect a bypass to ground on one of the rails and the other will be bypassed also. The best point to pick up ground is the ground end of the two 1K resistors coming off pins 2 and 13 of U1 (R9, R6), you will also see that the ground of the headphone jack is connected to this point thus establishing a good chassis ground. I connected a .1 uF ceramic cap from ground to pin 4 of U1, these seemed to be the best points to keep lead lengths short. After the cap was added no more noise, but I did have a scratchy headpho! ne volume control, solution was simple, remove the four screws holding the back cover of the volume control on, remove cover, shoot in some contact cleaner (Cailube), reassemble and the volume control worked great. That was it, now all three receivers are ready to be pressed back into service.

Mark Donaldson

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Date: Fri, 25 Jan 2002 11:38:03 -0700  
From: "Paull E. Patterson" <pepatte@sandia.gov>  
Subject: Re: Prem-Rx: Computer control of radios I've written C++ code for the Ten-Tec RX-330B

Paull

- ----- Original Message -----

From: "Jon Iza" <iapizloj@bi.ehu.es> To: <Premium-RX@kahuna.sdsu.edu> Sent: Wednesday, January 23, 2002 11:44 PM

Subject: Prem-Rx: Computer control of radios

> Folks > I kinda remember there was on the list some comments regarding a computer > control software which was getting developed targeting "our kind of radios". > I was aiming to software for a R&S EK070... as well as others > Does anybody have a clue or hint? > Be well > jon, ea2sn >

-----  
Date: Fri, 25 Jan 2002 23:45:53 +0100  
From: Christoph Ratzer <christoph@ratzer.at>  
Subject: Prem-Rx: JRC NRD 92 for sale Hello from Salzburg,

I have my Japan Radio Company NRD 92 to sell because I am getting a (german) premium-rx...

The receiver is technically and mechanically in excellent condition, you can find pictures at [www.ratzer.at](http://www.ratzer.at).

73 Christoph, OE2CRM

TenTec-RX340DSP IcomR9000 Collins-51S-1 JRC-NRD92 Sherwood SE3 Synchronous Detector, Timewave DSP599zx RF-Systems P3 Preselector, DXOnePro, Stridsberg MCA108

- ---- OE2CRM --- <http://www.ratzer.at> --- OE2-212680 ----

Date: Sat, 26 Jan 2002 23:56:17 +0100  
From: "ADXB" <adxb.geo@yahoo.com>  
Subject: Prem-Rx: MUNDIMEDIA Enero' 2002 - -----=\_NextPart\_84815C5ABAF209EF376268C8  
charset=US-ASCII

ASOCIACIÓN DX BARCELONA te presenta...

MUNDO DX - MUNDIMEDIA Nº 245 ENERO'2002

NUEVO FORMATO CD-ROM!!!

CONTENIDOS: Barcelona Sitges'91 - "Décimo Aniversario" Utilitarias - La Antártida "Cuaderno de Bitácora" Radio Astronomía , "2002 Marte Mucho mas cerca" 30 años del E-mail Receptor ICOM IC-PCR 1000 La Radio Filatelia "Filatelia Polar Argentina" Vivir en Tarragona BBC Informa "Matará Internet la Onda Corta?" ADXB Informa ( Noticias, Captaciones, FM, Radio Noruega, AWR) Grabación del programa musical de despedida de RADIO NORUEGA INTERNACIONAL (22 minutos) SECCIÓN SHAREWARE: Windows Media Player, Real Player, Winamp , Acrobat , MSN Messenger , WinZip. Radio Austria Internacional : Programa DX emitido por ADXB

SOLICITA TU EJEMPLAR POR SOLO 4.99 / 5\$ USA / 5 IRC's!!!

DATOS PERSONALES Nombre: Dirección: Cod.Postal: Ciudad: Provincia: País: Teléfono: FORMAS DE PAGO MEDIANTE INGRESO EN LA CAJA POSTAL Num.: 1302 - 9260 - 40 - 0021167733.

\*Nota: Remitir a ADXB copia del ingreso efectuado.

MEDIANTE INGRESO EN LA CAIXA DE TERRASSA Num.: 2074 - 0201 - 13 - 2035865757 \*Nota: Remitir a ADXB copia del ingreso efectuado.

MEDIANTE SELLOS de EURO a la dirección postal

MEDIANTE ENVIO DE DINERO EFECTIVO a la dirección postal.

DIRECCION POSTAL: ADXB, P.O.BOX 335 , 08080 Barcelona (España) - -----=\_NextPart\_84815C5ABAF209EF376268C8 charset= US-ASCII

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Aniversario</B></FONT></LI> <LI><FONT face= 3DArial color= 3D#ffffff size= 3D2><B> Utilitarias - L= a Ant= E1rtida &quot;Cuaderno de Bit= E1cora&quot;</B></FONT></LI> <LI><FONT face= 3DArial color= 3D#ffffff size= 3D2><B> Radio Astronom= EDa , &quot;2002 Marte Mucho mas cerca&quot;</B></FONT></LI> <LI><FONT face= 3DArial color= 3D#ffffff size= 3D2><B> 30 a= F1os del =

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Noticias,Captaciones,FM,Radio Noruega,AWR)</B></FONT></LI> <LI><FONT face= 3DArial color= 3D#ffffff size= 3D2><B> Grabaci= F3n del= programa musical de despedida de RADIO NORUEGA INTERNACIONAL (22 minutos)</B></FONT></LI> <LI><FONT face= 3DArial color= 3D#ffffff size= 3D2><B> SECCION SHAREWA= RE: Windows Media Player,Real Player, Winamp ,Acrobat , MSN Messenger , WinZip= 2E</B></FONT></LI> <LI><FONT face= 3DArial color= 3D#ffffff size= 3D2><B> Radio Austria I= nternacional : Programa DX emitido por ADXB</B></FONT></LI></UL></TD></TR><TR><TD width= 3D"403" valign= 3D"top" height= 3D"60"><p align= 3D"center"><span style= 3D"background-color: #FF6633"><f= ont color= 3D"#FFFFFF" size= 3D"5">SOLICITA TU EJEMPLAR POR SOLO<br> &nbsp; 4= 2E99 = 80 / 5\$ USA / 5 IRC's!!!</font> </span></TD></TR><tr><td height= 3D"692"><FORM ACTION= 3D"mailto:adxb@mundodx= 2Enet?Subject= 3DPeticion CD Mundimedia= Enero 2002" METHOD= 3DPOST onSubmit= 3D"return confirm("Tu Reserva ha sido = admitida= 2E Gracias)" ENCTYPE= 3D"TEXT/PLAIN"><TABLE width= 3D"401"><TR><TD colspan= 3D"2" bgcolor= 3D"#00FFFF" width= 3D"393"><b><font size= 3D= "4">DATOS PERSONALES</font></b></TD></TR><TR><TD width= 3D"64"><FONT SIZE= 3D2><b>Nombre:</b></font></TD><TD width= 3D"323"><INPUT TYPE= 3D"text" NAME= 3D"Nombre" SIZE= 3D35 VALUE= 3D""></TD></TR><TR><TD width= 3D"64"><FONT SIZE= 3D2><b>Direcci= F3n:</b></font></TD><TD width= 3D"323"><INPUT TYPE= 3D"text" NAME= 3D"Direccion" SIZE= 3D35 VALUE= 3D""></TD></TR><TR><TD width= 3D"64"><b><FONT SIZE= 3D2>Cod= 2EPostal:</font></b></TD><TD width= 3D"323"><b><INPUT TYPE= 3D"text" NAME= 3D"CodigoPostal" SIZE= 3D9 VALUE= 3D""></b></TD></TR><TR><TD width= 3D"64"><b><FONT SIZE= 3D2>Ciudad:</font></b></TD><TD width= 3D"323"><b><INPUT TYPE= 3D"text" NAME= 3D"Ciudad" SIZE= 3D35 VALUE= 3D""></b></TD></TR><TR><TD width= 3D"64"><b><FONT SIZE= 3D2>Provincia:</font></b></TD><TD width= 3D"323"><b><INPUT TYPE= 3D"text" NAME= 3D"Provincia" SIZE= 3D= 35 VALUE= 3D""></b></TD></TR><TR><TD width= 3D"64"><b><FONT SIZE= 3D2>Pa= EDs:</font></b></TD><TD width= 3D"323"><b><INPUT TYPE= 3D"text" NAME= 3D"Pais" SIZE= 3D35 VALUE= 3D""></b></TD></TR><TR><TD width= 3D"64"><b><FONT SIZE= 3D2>Tel= E9fono:</font></b></TD><TD width= 3D"323"><b><INPUT TYPE= 3D"text" NAME= 3D"Telefono" SIZE= 3D35 VALUE= 3D""></b></TD></TR><TR><TD width= 3D"393" colspan= 3D"2" bgcolor= 3D"#00FFFF"><font size= 3D"4"= ><b>FORMAS DE PAGÓ</b></font></TD></TR><TR><TD width= 3D"64"><input type= 3D"radio" checked name= 3D"FormaPago" v= alue= 3D"IngresoCajaPostal"></TD><TD width= 3D"323"><b><font size= 3D"2"> MEDIANTE INGRESO EN&nbsp; LA CAJA POSTAL</font></b></TD></TR><TR><TD width= 3D"64"></TD><TD width= 3D"323"><b><font size= 3D"2"> Num= 2E: 1302 - 9260 - 40 - 0021167733= 2E</font></b></TD></TR><TR><TD width= 3D"64"></TD><TD

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Do You Yahoo!? Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Mon, 28 Jan 2002 08:13:57 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: Hi All, I'm looking for information on two Racal modules used in the RA6830 - - 517 D.F. radio. A9 4100637 and A11 4100638. The A9 board has an extra I.C. compared to stock and the A11 looks the same as a standard module. I'm wondering if they can be used in a normal communications receiver? fc

End of premium-rx-digest V1 #173 \*\*\*\*\*  
Subject: premium-rx-digest V1 #174  
premium-rx-digest Tuesday, February 5 2002 Volume 01 : Number 174

----- Date: Mon, 28 Jan 2002 08:27:01 -0600  
From: mikea <mikea@mikea.ath.cx>  
Subject: Prem-Rx: DEBEG E2000 Well, I now have my DEBEG E2000, bought "as-is". It's better off than the typical "as-is" disaster area: the microprocessor is alive, the freq. indicator lights and counts up/down, the keys all appear to work (the A3F key lamp is stuck on), and so on. I even got the maintenance manual with it.

I'm going to be chasing signals for a while to isolate-and-fix at least one problem in the signal chain, as RF in isn't being converted to AF out at this point. \*sigh\*



End of premium-rx-digest V1 #174 \*\*\*\*\*  
Subject: premium-rx-digest V1 #175  
premium-rx-digest Wednesday, February 13 2002 Volume 01 : Number 175

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Date: Thu, 7 Feb 2002 19:46:00 -0900  
From: "Mike Taylor" <mvtaylor@acsalaska.net>  
Subject: Prem-Rx: Looking for some help on prices I have been off the list for several months and I am interested in getting some reasonable ideas for pricing some receivers for sale. Any input would be appreciated and please respond off list. I will try to get some consensus regarding price and if I can I would like to offer them to the group otherwise Ebay.

1. Plessey 2280 in excellent condition with a complete manual.
2. WJ 1000 with preselector, manual and in a case.
3. Icom 9000. This radio was modified by Sherwood engineering to include new cooling fan and heat sink. It also includes the filter modifications provided by Sheerwood Engineering <http://www.sherweng.com/>. This radio does not have a manual but it is available from Icom.

Thanks everyone for the input, I am afraid I am a bit out of the loop living up here in Alaska.

Mike Taylor AL1N

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Date: Thu, 7 Feb 2002 21:01:17 -0800  
From: "Spencer Bahner" <spencer12345@email.msn.com>  
Subject: Re: Prem-Rx: Looking for some help on prices Mike,

Based on what I have seen at few places something around \$2500-\$3000 would be about right for the HF1000. Is it an HF1000A?

The preselector is what might push it toward the \$3000 mark...

Case probably isn't of that much use since most Premium RX types are SO OVER THE TOP that we just fill up 19" racks with receivers and don't individually case them (except for the DX-pedition folks!).

Spencer Bahner Seattle - ----- Original Message -----

From: "Mike Taylor" <mvtaylor@acsalaska.net> To: <premium-rx@kahuna.sdsu.edu> Sent: Thursday, February 07, 2002 8:46 PM

Subject: Prem-Rx: Looking for some help on prices

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> > Thanks everyone for the input, I am afraid I am a bit out of the loop living > up here in Alaska.

> > Mike Taylor > AL1N

> > >

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Date: Thu, 7 Feb 2002 21:02:29 -0800  
From: "Spencer Bahner" <spencer12345@email.msn.com>  
Subject: Re: Prem-Rx: Looking for some help on prices Whooops! Sorry to all who might have been offended by my accidental reply to Mike via the list! I did a reply to all instead of just emailing him.

**Spencer Bahner Seattle**

- ----- Original Message -----

From: "Mike Taylor" <mvtaylor@acsalaska.net> To: <premium-rx@kahuna.sdsu.edu> Sent: Thursday, February 07, 2002 8:46 PM

Subject: Prem-Rx: Looking for some help on prices

> I have been off the list for several months and I am interested in getting > some reasonable ideas for pricing some receivers for sale. Any input would > be appreciated and please respond off list. I will try to get some > consenious regarding price and if I can I would like to offer them to the > group otherwise Ebay.

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> > Thanks everyone for the input, I am afraid I am a bit out of the loop living > up here in Alaska.

> > Mike Taylor > AL1N

> > >

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Date: Fri, 08 Feb 2002 16:58:31 -0800  
From: jan@skirrow.org  
Subject: Prem-Rx: Info Needed on HP1652B Logic Analyzer Hi All ...

Not exactly a premium receiver, but probably useful in the design thereof ...

I have an HP1652B, but so far haven't found an operator's guide for it, and it's operation is most definitely non-obvious.

My immediate problem is that I would like to make a backup copy of the operating system diskette. I can find no obvious way to do this from any of the analyzer's menus, and the diskette doesn't seem to be a standard PCDOS format.

Anyone know how????

Jan Skirrow

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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Date: Fri, 8 Feb 2002 19:16:18 -0600  
From: mikea <mikea@mikea.ath.cx>





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Date: Sun, 10 Feb 2002 00:27:15 -0500  
From: Robert Ross <va3sw@rogers.com>  
Subject: Prem-Rx: Stereo Stoddart NMA-5A's...BIG BOATANCHORS...Early Lab Receiver w  
PHOTOS!! Hello Folks:

This Story starts a Long Time ago, when I first Started Collecting BoatAnchor Radios around 1977. A friend of mine had a obtained a Real Neat Boatanchor Radio from "Buckland's", the local Surplus Store here in London, Ontario CANADA. When he invited me over to see it, I decided I just had to have it!! I had never even heard of the Manufacturer, let alone ever seen one, but it was just too cool to pass up! After a lot of Haggling we decided on a Trade. I would give him 2 RCA AR88's in working condition, and he would give me the Mystery Boatanchor!! I really hated to part with the 2 AR88's....but I knew I could find another 88 with a little looking.....The new Receiver was probably a Once in a Lifetime Find, at least that was what I thought!

I was now the proud owner of a STODDART NMA-5A, Made in Hollywood, California in 1949!! I really didn't know exactly what it was back then, but the Original Manual said it was a "Radio Interference and Field Intensity Meter".....But it operated as a Receiver. It was Big, Weighed a Ton, Had a Pile of Knobs and Controls, and was Basically like new. I was lucky to also obtain the Original Manual, which helped me to understand that this was a "Laboratory Grade" Instrument made for Commercial and Military Use as a "Noise Source Detector". To quote the manual..." The NMA-5A Radio Interference-Field Intensity Meter is a High Sensitivity HF and VHF Radio Receiver used to locate and measure RF Interference (Noise) and includes accessories to make Field Strength measurements in the 15 to 400 megacycle portion of the radio spectrum".

The manual showed that there were a Lot of Accessories that went with the Receiver, but all I had was the HF Expandable Dipole, and the VHF Plug in Head. This Receiver covers 15 to 400 Mcs in 4 Frequency Ranges, 15-31 Mcs, 29-64 Mcs, and 60-125 Mcs with the LF Head, and 88-400 Mcs with the VHF Head. The Receiver is a SuperHetrodyne type. The Total weight of all the equipment including accessories is 159 Pounds!!

I have had the Receiver now for 25 Years, and have used it off and on for FM Listening on the Commercial FM Band, and for DX'ing the VHF Bands during High Sunspot Years, but mostly it has just adorned the shack as a Conversation Piece .....it always attracts a "What the Heck is That??" whenever another Boatanchor Enthusiast comes over!

I have tried to obtain more Info on the Receiver, but in the past 25 years, I have never found another person who has owned one of these...or even saw one for that matter. I have found a few other Stoddart Owners, but not of this model. Stoddart made 7 or 8 other Models of Various descriptions, but most were smaller than the NMA-5A. There have been a few Tidbits of Info written on this Company over the Years, but for the Most Part, this is a seldom heard of Manufacturer!

Remember I obtained this receiver 25 years ago, and figured it was the Only one I would ever see??? Well.....Late last year, I got a Phonecall from another Boatanchor Friend of Mine, Dave "VE3ZZY", advising that another friend of ours Dave "VA3DN" had been asked to dispose of an Estate...and Guess what he found?? Yep...another Stoddart NMA-5A.....Just like mine, in like condition. Not only did he have the Radio, he also had all of the Accessories that I was missing!! The Loop Antenna, the UHF Dipole, The Measuring Stick for the Dipoles, and the Rotary Converter Box for Battery Operation! Now I figured what were the Chances of these 2 Receivers ending up in the same Place so far from Hollywood?? Turns out the Owner of this Radio also purchased his NMA-5A at Buckland's...back in 1977...so these were Twin Brothers!! As it turns out, the Serial Number of my Receiver is 166-37, and the other Receiver is 166-38, so these came off the Line one after another...and somehow ended up in our Local Surplus Store some 30 Years Later!!

So...to shorten the Story, I am now the Proud Owner of the 2nd Receiver, and 2 Lost Brothers have now found a New Home here at VA3SW Land! I'm afraid to say that there are probably no more of these

around, as I don't think I have room for another should it surface sometime in the future! The Only Accessory I am missing is the Collapsible Wooden Tripod for the Antennas, and believe it or not, I have Located that too!! Right here in London in the Hands of another Local Ham who Purchased it back in the Late 70's from ....Yep you guessed it..."Buckland's Electronics Surplus!!". I haven't been able to convince him to part with the Tripod yet, but hopefully someday it too will be Re-United with the Twins!

If there are any other Stoddart Owners out there, especially NMA-5A Owners....I would be most happy to hear from you. Anyone with any information on these Receivers, or Knowledge of them, please contact me as well. I don't know what the Original Price of these Receivers was...But I'll bet it was BIG \$\$\$ especially back in 1949 Dollars!

Below I have included a selection of Photos of the Receivers and the Accessories so you can enjoy them too!! Just click on the URL's below..and they will take you directly to my Webpage where the Photos are Stored!

Hope this short Article has Spurred some Interest in this seldom seen Boatanchor!

73...ROB VA3SW

Pair Of Receivers <http://members.rogers.com/va3sw/Stodd1.JPG>

Pair Of Receivers 2 <http://members.rogers.com/va3sw/Stodd3.JPG>

Front Of Receiver <http://members.rogers.com/va3sw/Stodd7.JPG>

Front Of Receiver 2 <http://members.rogers.com/va3sw/Stodd9.JPG>

Receiver Dial <http://members.rogers.com/va3sw/Stodd10.JPG>

Controls 1 <http://members.rogers.com/va3sw/Stodd11.JPG>

Controls 2 <http://members.rogers.com/va3sw/Stodd12.JPG>

Controls 3 <http://members.rogers.com/va3sw/Stodd13.JPG>

Meter <http://members.rogers.com/va3sw/Stodd14.JPG>

Side View <http://members.rogers.com/va3sw/Stodd16.JPG>

Top View 1 <http://members.rogers.com/va3sw/Stodd17.JPG>

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LF Dipole Antenna Label <http://members.rogers.com/va3sw/Stodd31.JPG>

Original Manual <http://members.rogers.com/va3sw/Stodd32.JPG>



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content=3D"MSHTML 6.00.2712.300" name=3DGENERATOR> <STYLE></STYLE>  
</HEAD> <BODY bgColor=3D#ffffff> <DIV><FONT face=3DArial size=3D2> Best offer  
above \$2500. WJ 1000 in a = case. This receiver includes the preselector and a complete manual. I  
will pay 1/2 = the shipping cost.</FONT></DIV> <DIV><FONT face=3DArial  
size=3D2> Mike Taylor</FONT></DIV> <DIV><FONT face=3DArial  
size=3D2> AL1N</FONT></DIV></BODY></HTML>

- -----=\_NextPart\_000\_002E\_01C1B260.3072A9B0--

Date: Mon, 11 Feb 2002 09:15:12 -0500

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Stereo Stoddart NMA-5A's...BIG BOATANCHORS...Early L ab Receiver w  
PHOTOS!! AH reminds me of EMI testing with the old NF105. HMMMM is that a narrow band or  
broad band?

> -----Original Message----- >

From: Robert Ross [SMTP:va3sw@rogers.com] > Sent: Sunday, February 10, 2002 12:27 AM > To:  
premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Stereo Stoddart NMA-5A's...BIG BOATANCHORS...Early > Lab Receiver w  
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- > > Original Manual Page 2 > <http://members.rogers.com/va3sw/Stodd34.JPG>
- > > Dipole Tape Measure > <http://members.rogers.com/va3sw/Stodd35.JPG>
- > > Side NameTag > <http://members.rogers.com/va3sw/Stodd38.JPG>
- > > Side NameTag 2 > <http://members.rogers.com/va3sw/Stodd40.JPG>
- > > > Robert S. Ross VA3SW > Box 1003, Stn. B. > London, Ontario > CANADA N6A5K1
- > > Antique/Vintage Radio Enthusiast > Amateur Radio Stations VA3SW/VE3JFC
- > > Defy Physics.....Play Table Tennis!! (Ping Pong with an Attitude) >

-----  
Date: Mon, 11 Feb 2002 16:32:46 +0100  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: New member

- -----= \_NextPart\_000\_0026\_01C1B319.BCE0FBEO

Hi there,

Just wanted to introduce me to the group. My name is Herbert Bloemen and = I currently have the following receivers; Racal RA6793A, Racal RA17, = Collins 651S1, R&S EK07, Siemens E401, Telefunken ELK639. In the past I = had also Plessey PR2250, R&S EK56, Skanti 5001, JRC NRD92, NRD61A and = others not worth mentioning. Just using a receiver for a while and then = getting a different one is what makes most fun to me.

Looking forward hearing from you.

Regards,

Herbert the Netherlands

- -----=\_NextPart\_000\_0026\_01C1B319.BCE0FBEO

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<DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Herbert</FONT></DIV>
<DIV> <FONT face= 3DArial size= 3D2> the Netherlands</FONT></DIV>
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- -----=\_NextPart\_000\_0026\_01C1B319.BCE0FBEO--

Date: Mon, 11 Feb 2002 18:23:54 +0100  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: Prem-Rx: EMI testing Hey Frank, I didn't know you had been in that field. Looking at IEEE-291 makes me full of admiration for the effort you must have expended in just getting a calibrated reading on those receivers. Life is easier now with software control of measuring receivers, and all I have to do when I open up the Test Centre is push a "Cal" button and about 1 minute later the Rohde & Schwarz receivers have achieved a 0.5dB accurate cal. 73

- ----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

Date: Mon, 11 Feb 2002 16:51:52 -0800  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: SDSU goes dark taking Premium-Rx server with it

- -----=\_NextPart\_000\_0065\_01C1B31C.67CF0040

Gentlemen:

Due to a traumatic high voltage breakdown of a service transformer on our campus, the Premium-Rx server was down for approximately 3 hours today starting at 1050 hours. The breakdown caused our campus co-generation plant to drop off line, and from there we spiraled into a state of "melt down" as one building after another, including our broadcast center (KPBS-TV and FM), went dark.

This is the second time we have lost the Premium-Rx server in three years. Hey, it ain't perfection, but darn close. Speaking of perfection- for those of you in the northern hemisphere, "winter" in San Diego today was 78 F and crystal clear. . . .

73's

Greg

- -----=\_NextPart\_000\_0065\_01C1B31C.67CF0040

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- -----= \_NextPart\_000\_0065\_01C1B31C.67CF0040--

Date: Tue, 12 Feb 2002 19:23:34 +0100  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: WJ 8716

- -----= \_NextPart\_000\_0009\_01C1B3FA.C3611540

Hi all,

Could buy a WJ8716 locally any suggestions where too look out for ? Any recommendations ?

Regards,

Herbert Bloemen

- -----= \_NextPart\_000\_0009\_01C1B3FA.C3611540

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- -----= \_NextPart\_000\_0009\_01C1B3FA.C3611540--

Date: Tue, 12 Feb 2002 16:46:55 EST  
From: Daiungoed@aol.com  
Subject: Prem-Rx: W&J 8617 - --part1\_21.18f25088.299ae74f\_boundary

Hi

Does anyone by any chance have a spare A3A2 UHF PREAMP/MIXER board for an 8617 that they would be prepared to sell, to help me resurrect this fine receiver, or maybe a trade for some 8626 boards, even the ones with the lovely shiny COLLINS filters on, any offers?? Dave

- --part1\_21.18f25088.299ae74f\_boundary

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LANG= "0">

Hi





- -----=\_NextPart\_000\_000D\_01C1FB49.DDEA78C0

Gentlemen:

Ahmet Gundes joins us (are you ready for this) while on vacation in Spain. His actual QTH is in the "northern part of New Jersey". His second QTH is far more interesting, he owns a home on Gran Canaria Island (part of the Canary Islands) where he is establishing the SWL's ideal location: low QRM, plenty of antenna space, and situated in the middle of three continents.

Ahmet principle interest is SWLing, which he has been doing since childhood. He is a self employed EE working in the area of modeling antennas as well as design of circuits (design and production of RF & Microwave circuits and systems mainly for aerospace / military). In addition, an area of interest and present work is the demodulation as it is associated with front end circuitry and receiving antennas.

He presently operates equipment by NRD, WJ, as well as Collins.

For those wanted to E-mail our newest member: Ahmet Gundes [ahmetg@eltronik.com]

Greg

- -----=\_NextPart\_000\_000D\_01C1FB49.DDEA78C0

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<p class= 3DMsoNormal style= 3D'text-autospace:none'><font size= 3D2 = face= 3D"Courier New"><span style= 3D'font-size:10.0pt;font-family:"Courier New'">Ahmet = Gundes</span></font><font size= 3D2 face= 3D"Courier New"><span = style= 3D'font-size:10.0pt;font-family:"Courier New'"> joins us (are you ready for this) while on vacation in = </span></font><font size= 3D2 face= 3D"Courier New"><span = style= 3D'font-size:10.0pt;font-family:"Courier = New'"> Spain</span></font><font size= 3D2 face= 3D"Courier New"><span = style= 3D'font-size:10.0pt;font-family:"Courier New'">.&nbsp;=</span></font><font = size= 3D2 face= 3D"Courier New"><span = style= 3D'font-size:10.0pt;font-family:"Courier New'"> New Jersey</span></font><font size= 3D2 face= 3D"Courier New"><span = style= 3D'font-size: 10.0pt;font-family:"Courier

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< p class= 3DMsoNormal style= 3D'text-autospace:none'> < font size= 3D3 face= 3D"Times New Roman"> < span = style= 3D'font-size:12.0pt'> Greg</span> </font> </p>

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</body>

</html>

- -----= \_NextPart\_000\_000D\_01C1FB49.DDEA78C0--

-----  
Date: Thu, 14 Feb 2002 20:49:15 EST  
From: Ka9p@aol.com  
Subject: Re: Prem-Rx: New Member: Ahmet Gundes Welcome Ahmet. Greg must have left off the part about hosting the annual listening party as an initiation :)

-----  
Date: Thu, 14 Feb 2002 20:09:36 -0600  
From: mikea <mikea@mikea.ath.cx>  
Subject: Re: Prem-Rx: New Member: Ahmet Gundes On Thu, Feb 14, 2002 at 08:49:15PM -0500, Ka9p@aol.com wrote: > Welcome Ahmet. Greg must have left off the part about hosting the annual > listening party as an initiation :)

Well, he didn't tell me, and I don't have my Debeg 2000 working yet, either. (Note to self: ORDER THE CHIPS FROM MOUSER, DAMN IT!)

Welcome, Ahmet! Not much traffic here, but a very nice SNR.

- -- Mike Andrews mikea@mikea.ath.cx Tired old sysadmin since 1964

-----  
Date: Fri, 15 Feb 2002 13:56:54 -0800  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: PRS2280 / PRS2282 opinions Hello everybody. I am considering to purchase a Plessey PRS2280 or PRS2282 (orA) receiver. I would appreciate receiving any opinions on these receivers. Also if you know of any web sites where more technical information can be obtained on these receivers along with specs and details on their options. To share the pros and cons contact me off List. My main interest is AM Broadcast listening to weak and distant stations in crowded bands such as the 5.8MHz, 7.2MHz, 9.6MHz. Thank you for your feedbacks in advance. Ahmet Gundes KC2HAA ( ahmetg@eltronik.com )

-----  
Date: Fri, 15 Feb 2002 14:05:24 -0500  
From: "Walt Novinger" <wnovinger@nc.rr.com>  
Subject: Re: Prem-Rx: PRS2280 / PRS2282 opinions I'd enjoy hearing opinionws on these rx's, too, as I have been thinking of same. Let's have replies to the list, assuming the others have no issues.

Thanks, Walt

Walt Novinger Raleigh, NC wnovinger@nc.rr.com - ----- Original Message -----

From: "Ahmet Gundes" <ahmetg@eltronik.com> To: <Premium-Rx@kahuna.SDSU.Edu> Sent: Friday, February 15, 2002 4:56 PM

Subject: Prem-Rx: PRS2280 / PRS2282 opinions

> Hello everybody. > I am considering to purchase a Plessey PRS2280 or PRS2282 (orA) > receiver. I would appreciate receiving any opinions on these > receivers. Also if you know of any web sites where more technical > information can be obtained on these receivers along with specs and > details on their options. To share the pros and cons contact me off List. > My main interest is AM Broadcast listening to weak and distant > stations in crowded bands such as the 5.8MHz, 7.2MHz, 9.6MHz. > Thank you for your feedbacks in advance. > Ahmet Gundes KC2HAA ( ahmetg@eltronik.com ) >



Subject: Prem-Rx: Plessey receiver / 2250, 2280

- -----=\_NextPart\_000\_001E\_01C1B664.FCA45EE0

Hi

Yes, I had a 2250 and together with some other users of this receivers = we shared the same experience;

Yes, this is a great, high performance receiver !

However, most of us also experienced problems with the synthesizer = (suddenly poor reception, either on the whole band, or part of it). I = fixed the problem adjusting one of the pll's.

I think the main problem is the usage of the early type tantal = capacators, which are known too die after about 20-25 years....

Since they are not used in any application requiring adjustment of the = receiver (I think), just replace them....

Once again, I think it is one of the best receivers I've ever had, and = I had lot's.

Feel free to contact me for any other information.

Regards,

Herbert Bloemen

- -----=\_NextPart\_000\_001E\_01C1B664.FCA45EE0

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Hi

</FONT></DIV> <DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Yes, I had a 2250 and together with = some other users of this receivers we shared the same experience;</FONT></DIV> <DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Yes, this is a great, high performance = receiver !</FONT></DIV>

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<DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Regards,</FONT></DIV>

<DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Herbert Bloemen</FONT></DIV> <DIV> &nbsp;</DIV> <DIV> &nbsp;</DIV></BODY></HTML>

<DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Regards,</FONT></DIV>

<DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Herbert Bloemen</FONT></DIV> <DIV> &nbsp;</DIV> <DIV> &nbsp;</DIV></BODY></HTML>

- -----=\_NextPart\_000\_001E\_01C1B664.FCA45EE0--

Date: Fri, 15 Feb 2002 16:37:33 -0500



From: ipassets <machine.age@verizon.net>

Subject: Re: Prem-Rx: PRS2280 / PRS2282 opinions I have a 2280 and a 2282. They are right up there with the best. John Wilson did a review in SW mag. about a year ago. For my money, and I have a 6790, used many 1792's, have the Harris and the Collins DSP rig, the Plessey is right up there with them----but no better. The Harris is probably the better rig for this usage. The 1792 is ok, but the Plessey is just as good, maybe a tad more sensitive. I have a soft spot for English gear, and love the Plessey myself. Ugly? Not on your life.

John England Rhode Island

Ahmet Gundes wrote:

> Hello everybody. > I am considering to purchase a Plessey PRS2280 or PRS2282 (orA) > receiver. I would appreciate receiving any opinions on these > receivers. Also if you know of any web sites where more technical > information can be obtained on these receivers along with specs and > details on their options. To share the pros and cons contact me off List. > My main interest is AM Broadcast listening to weak and distant > stations in crowded bands such as the 5.8MHz, 7.2MHz, 9.6MHz. > Thank you for your feedbacks in advance. > Ahmet Gundes KC2HAA ( ahmetg@eltronik.com )

-----  
Date: Fri, 15 Feb 2002 16:39:03 -0500

From: ipassets <machine.age@verizon.net>

Subject: Re: Prem-Rx: PRS2280 / PRS2282 opinions Further to my earlier post, I have found no web sites with info on Plessey; I know of several dealers in the UK that I have dealt with. There is one in Canada, and its not Toronto surplus. Let me know if you want the info.

John England

Ahmet Gundes wrote:

> Hello everybody. > I am considering to purchase a Plessey PRS2280 or PRS2282 (orA) > receiver. I would appreciate receiving any opinions on these > receivers. Also if you know of any web sites where more technical > information can be obtained on these receivers along with specs and > details on their options. To share the pros and cons contact me off List. > My main interest is AM Broadcast listening to weak and distant > stations in crowded bands such as the 5.8MHz, 7.2MHz, 9.6MHz. > Thank you for your feedbacks in advance. > Ahmet Gundes KC2HAA ( ahmetg@eltronik.com )

-----  
Date: Fri, 15 Feb 2002 22:15:16 -0000

From: "Joanna 1" <joanna1@btinternet.com>

Subject: Prem-Rx: Further to my last info

- -----= \_NextPart\_000\_001F\_01C1B66E.3F2DABA0

Further information on the 2250 was found on = [www.inter.nl.net/hcc/shortwave](http://www.inter.nl.net/hcc/shortwave)

hope it is still there no time to check at present. Jo,

- -----= \_NextPart\_000\_001F\_01C1B66E.3F2DABA0

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on the 2250 was found on = <A
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wave</A></FONT></DIV> <DIV> &nbsp;</DIV> <DIV><FONT color= 3D#000000> hope it is still there no time to check at present.</FONT></DIV> <DIV><FONT color= 3D#000000> Jo,</FONT></DIV></BODY></HTML>

- -----= \_NextPart\_000\_001F\_01C1B66E.3F2DABA0--

Date: Sat, 16 Feb 2002 02:04:39 +0100  
From: Vittorio De Tomasi <ik2czl@amsat.org>  
Subject: Re: Prem-Rx: Further to my last info > Joanna 1 wrote:

>> Further information on the 2250 was found on > www.inter.nl.net/hcc/shortwave  
>> hope it is still there no time to check at present. > Jo,  
This URL <http://web.inter.nl.net/hcc/Shortwave/Index.html?target=boat.htm> works better (click on "receivers"). There are the manuals (incomplete, as far as I could see) and a piece of software for remote controlling the PR2250.

vy 73

Vittorio ik2czl

\_ \_ \* ~ ~ ~ ~ ~

Vittorio De Tomasi ik2czl@amsat.org <http://www.weaksignals.com>

"Sometimes things just don't make sense, and that's just the way it is. Live with it. More tea?" - Richard Feynman

Date: Sat, 16 Feb 2002 18:31:16 +0100  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: Racal boatanchors

- -----= \_NextPart\_000\_0019\_01C1B718.1ECC7B20

Hi everybody !

Anybody interested in the older Racal RA17/117 receivers and all the = options that are available for them (about the same size and weight as = the receiver..)

Regards,

Herbert

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</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2> Hi everybody
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(about the = same size and weight as the receiver..)</FONT></DIV> <DIV> &nbsp;</DIV>
<DIV><FONT face= 3DArial size= 3D2> Regards,</FONT></DIV> <DIV> &nbsp;</DIV>
<DIV><FONT face= 3DArial size= 3D2> Herbert</FONT></DIV>
<DIV> &nbsp;</DIV></BODY></HTML>
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- -----= \_NextPart\_000\_0019\_01C1B718.1ECC7B20--

Date: Sat, 16 Feb 2002 11:35:37 -0600

From: mikea <mikea@mikea.ath.cx>  
Subject: Re: Prem-Rx: Racal boatanchors On Sat, Feb 16, 2002 at 06:31:16PM +0100, Herbert Bloemen wrote: > Hi everybody !

>> Anybody interested in the older Racal RA17/117 receivers and all the options that are available for them (about the same size and weight as the receiver...)

Well, of course. They may not qualify as premium receivers according to the charter for this list, but they're damn fine gear -- right up with the R-390 series IMHO and in the opinion of at least one SWL friend in the UK.

I also like my 6217 -- or expect to, once it's working.

Anyone know where to get card extenders for Racal 6217, DEBEG 2000, and/or Mackay 320A (I think)?

If not, got hints on building extenders?

- - Mike Andrews mikea@mikea.ath.cx Tired old sysadmin since 1964

-----  
Date: Sat, 16 Feb 2002 19:05:14 +0100  
From: "ADXB" <adxb.geo@yahoo.com>  
Subject: Prem-Rx: MUNDI MEDI A Febrero'2002 - -----\_NextPart\_84815C5ABAF209EF376268C8

ASOCIACIÓN DX BARCELONA te presenta...

MUNDO DX - MUNDIMEDIA Nº 246 FEBRERO'2002

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\*Nota: Remitir a ADXB copia del ingreso efectuado.

MEDIANTE INGRESO EN LA CAIXA DE TERRASSA Num.: 2074 - 0201 - 13 - 2035865757 \*Nota: Remitir a ADXB copia del ingreso efectuado.

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MEDIANTE ENVIO DE DINERO EFECTIVO a la dirección postal.

DIRECCION POSTAL: ADXB, P.O.BOX 335 , 08080 Barcelona (España) Por favor si no desea recibir mas información de nuestra asociación , conteste a este mail con el Asunto/Subjet : BAJA y le daremos de baja en nuestra mail list. If you did not request this email, please reply to this message and type "remove". - -----\_NextPart\_84815C5ABAF209EF376268C8

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</td> </tr> <tr><td><b> DIRECCION POSTAL:</b><br> <b><font color= 3D"#FFFFFF">ADXB, P= 2EO= 2EBOX 335 , 08080 Barcelona (= Espa= F1a)</font></b></td></tr> <tr><td><font SIZE= 3D"1"> Por favor si no desea recibir mas informaci= F3n= de nuestra asociaci= F3n , conteste a este mail con el Asunto/Subjet : B= AJA y le daremos de baja en nuestra mail list= 2EIf you did not request thi= s email, please reply to this message and type &quot;remove&quot;= 2E</font></td></tr></tbody></table></body></html>

- -----= \_NextPart\_84815C5ABAF209EF376268C8--

Do You Yahoo!? Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Sun, 17 Feb 2002 09:26:51 -0800  
From: "Greg W. Bailey" <[gbailey@mail.sdsu.edu](mailto:gbailey@mail.sdsu.edu)>  
Subject: Prem-Rx: New Member- Peter Shilton, VE3AX ... EME, WAS 220MHz

- -----= \_NextPart\_000\_0027\_01C1B795.3B2560C0

Gentlemen:

Peter Shilton, VE3AX, has joined the list from Cayuga, ON. Canada. = Peter learned about our list via two other charter members, Tony Ward = and David Clark. As is tradition on this List, whenever the names of = David and/or Tony are mentioned, I address them as the "Oak Leafers" = which causes great consternation for these fine outstanding Maple Leaf = neighbors of mine. :-)

Back to the important things: Our newest member has a diverse = background in amateur radio. He has constructed some excellent examples = of high powered amplifiers ( = <http://www.angenent.org/W7IUV/ve3ax/ve3ax.htm> ), in the DX department he = earned the #7 WAS award on 220 MHz, and he is recognized as one of the = earlier EME operators starting in 1973 (working 150 stations on one moon = pass). As he joins us he is adding a 200W 1296 MHz transmitter to his = EME efforts. Look out moon!

Recently his interest in HF receivers, Drake specifically, was = re-kindled. Although he had a fully loaded R-7, he just "found" a = Drake DSR-12 at a local flea market. The receiver operated but required = a little tweaking to bring it up to standards. He is presently looking = for the following : R-4245, RR-3, or MSR-1/2/FM-P. Perhaps someone on = the list has a few extra pieces of hardware looking for a new home?

Peter can be contacted at: [ve3ax@sympatico.ca](mailto:ve3ax@sympatico.ca)

Greg

FYI: I am behind in my "introduction" activities. We have about five = new members I still need to welcome. We have passed the 180 member = mark.

- -----= \_NextPart\_000\_0027\_01C1B795.3B2560C0

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- -----=\_NextPart\_000\_0027\_01C1B795.3B2560C0--

Date: Sun, 17 Feb 2002 11:48:59 -0800  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: New Member- Peter Shilton, VE3AX ... EME, WAS 220MHz - --  
===== \_12592700==\_ .ALT ; format=flowed

At 09:26 AM 2/17/02 -0800, Greg W. Bailey wrote: > Gentlemen:

> > Peter Shilton, VE3AX, has joined the list from Cayuga, ON. Canada. Peter > learned about our list via two other charter members, Tony Ward and David > Clark. As is tradition on this .....

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Talk about fine construction technique! This is the way it should be done.

Great to have you aboard Peter ....

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* http://skirrow.org/Boatanchors/ \*\*\*

- -----=\_12592700==\_ .ALT

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<br> Jan Skirrow, VE7DJX<br> <br> <div> &nbsp;</div> <div> &nbsp;</div> <div> ... in beautiful British Columbia, Canada</div> <br> <div> \*\*\*&nbsp;<a href= "http://skirrow.org/Boatanchors/" EUDORA= AUTOURL> http://skirrow.org/Boatanchors/</a> &nbsp;</div> </html>

- - - - - \_12592700= = \_ALT--

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End of premium-rx-digest V1 #176 \*\*\*\*\*  
Subject: premium-rx-digest V1 #177  
premium-rx-digest Wednesday, February 20 2002 Volume 01 : Number 177  
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----- Date: Sun, 17 Feb 2002 17:57:35 -0600  
From: "John Reed" <jreed@ponca.net>  
Subject: Prem-Rx: Plessey PRS2282A

- - - - - \_NextPart\_000\_0034\_01C1B7DC.94BD3300

For those interested I have some specs on this receiver that may be = interesting. They are hard to find but here's what I have:

Sensitivity:

8 KHz AM sensitivity: 3 uV for 8 dB S/S+ N 3 KHz SSB sensitivity : 1 uV for 14 dB S/S+ N 300 Hz CW sensitivity: 1 uV for 18 dB S/S+ N

For comparison I checked my RA6793A in the SSB, CW modes (I'm never sure = what people measure for AM sensitivities) 3.2 KHz SSB sensitivity: 1.6 uV for 14 dB S/S+ N 300 Hz CW sensitivity: 1.1 uV for 18 dB S/S+ N

The Plessey is somewhat more sensitive than the Racal, but not a lot.

Blocking dynamic range: Unwanted signal 25 KHz from wanted 1 uV signal. = 120 dB blocking dyanmic range to reduce desired signal one dB.

IMD dynamic range: Two signals 25 KHz from desired frequency generate = intermodulation products less than one uV. Dynamic range of 87 dB.

Dynamic range is less than Racal (or Harris).

Filters available for AM reception: 8 KHz, 2.7 KHz, 1.2 KHz Filter available for SSB reception: 2.7 KHz Filters available for CW: 1.2 KHz, either 100 or 300 Hz filters.

Construction is plug in modules on plate aluminum chassis. Tuning steps = are 10 Hz and 100 Hz.

I looked at the on-line manual for the PRS2250. I was impressed by the = addition of a post-if amplifier switched filter set. This will improve = reception particularly for narrow CW filters.

This is probably a good receiver, but in my opinion not good enough to = sell for 2-4 times what the RA6790s go for.

John Reed

- - - - - \_NextPart\_000\_0034\_01C1B7DC.94BD3300

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<DIV><FONT size= 3D2></FONT> &nbsp;</DIV></BODY></HTML>

- -----= \_NextPart\_000\_0034\_01C1B7DC.94BD3300--

Date: Sun, 17 Feb 2002 17:36:22 -0800  
From: Larry Gadallah <larry@gadallah.com>  
Subject: Prem-Rx: (Off topic, but relevant) DX been worse lately? Hi all:

I just saw something on the TV that wasn't directly related to the Prem-RX list, but I thought a lot of those folks here who, unlike me, actually connect their premium RXs to antennae and listen would be interested in it regardless.

I saw an interview with a British physicist who has been conducting studies into the ionosphere for a long time (38 years), and recently has been studying measurements made of the height of the ionosphere over Antarctica. Apparently it's been getting lower by an average of 0.2 km per year for the time he's been collecting data (again, 38 years). These results have been correlated with results from groups in Finland and Germany, so the effect is likely global. The hypothesis is that the temperature of the ionosphere is being affected by the temperature of the lower layers of the atmosphere, which in turn are being heated by greenhouse gas emissions.

Regardless, needless to say, if the ionosphere gets lower, the DX will get worse for all of us :-).

73, - -- Larry Gadallah, VE6VQ larry AT gadallah DOT com 33.06.00.612N 117.07.05.916W 210Z  
http://www.gadallah.com/~larry Key fingerprint = D6 79 5D 9D 41 27 74 03 68 FD D7 F3 86 68 EB  
A5

-----  
Date: Mon, 18 Feb 2002 13:27:43 -0500  
From: "Walt Novinger" <wnovinger@nc.rr.com>  
Subject: Prem-Rx: OT: ping Larry Gadallah

- -----= \_NextPart\_000\_0757\_01C1B880.0BCEC730

Larry,

Your email bounces back repeatedly...please reply with working address = :)

Sorry for the bandwidth, folks!

Walt Novinger Raleigh, NC wnovinger@nc.rr.com

- -----= \_NextPart\_000\_0757\_01C1B880.0BCEC730

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color= 3D#800000> Larry,</FONT></DIV> <DIV><FONT
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bounces back repeatedly...please = reply with working address :)</FONT></DIV>
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Novinger< BR> Raleigh, NC< BR>< A
href= 3D"mailto:wnovinger@nc.rr.com"> wnovinger@nc.rr.com</A></FONT></DIV>< =
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- -----= \_NextPart\_000\_0757\_01C1B880.0BCEC730--

-----  
Date: Mon, 18 Feb 2002 12:46:38 -0800  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: (Off topic, but relevant) DX been worse lately? Hi Larry ...

At 05:36 PM 2/17/02 -0800, Larry Gadallah wrote: > I saw an interview with a British physicist who has been conducting > studies into the ionosphere for a long time (38 years), and recently > has been studying measurements made of the height of the ionosphere > over Antarctica. Apparently it's been getting lower by an average > of 0.2 km per year for the time he's been collecting data (again, > 38 years). These results have been correlated with results from

The difficulty I have in interpreting these results is that the ionosphere is very thick, extending from around 70km or so to maybe 500km. The electron density thru this thickness varies considerably, peaking around 250-275km. The day night variation in density at any height is a factor of 10 or so (all of these numbers are very approximate). I'm hazier on the radio wave reflection part, but would assume that the reflectivity would be a function of electron density and frequency. So there is enormous normal variation in electron density and thus reflectivity at a particular frequency over day/night, and of course over the much longer solar cycle.

If there is a systematic change as your email outlined, I'd assume it was some kind of average? Or maybe the average height of a particular electron density?



-- Mike Andrews mikea@mikea.ath.cx Tired old sysadmin since 1964

-----  
Date: Mon, 18 Feb 2002 14:56:41 -0800  
From: "refmon" <monitor@referencevideo.com>  
Subject: Re: Prem-Rx: TERMINATORS

- =====\_NextPart\_000\_0014\_01C1B88C.797186E0

Hi Dave & group,

I'll comment because I have just completed sweeps, etc on several = multicoupler units and have observed exactly what the effects are:

Cubic F1611/U one in/8 out and a passive 1 in/6 out...if there are = unterminated outputs, the frequency response goes south fast-such things = as transformers, hybrids, and/or microstrip traces need to work into a = load-if not terminated, there will be reflections, standing waves, and = all the seemingly random wierdness that goes with all that. If there is = high port-to-port isolation, the casual user may not see any dramatic = effect, but it's there. I am instrumented with a sweep gen, spectrum = analyzer, and plotter-a multicoupler that sweeps essentially flat with = terminations, may show as much as a 6db ripple in the frequency sweep if = some ports are left unterminated.

In casual useage, it actually may not matter...in fact here's a = horrifying confession: I am using 50 ohm BNC terminators from a 10 base = 2 coax ethernet setup and these work just fine up to several hundred = MHz-actually work out to 1GHz with a little ripple above about 600 = MHz...this would be a disaster in a lab setting, but makes virtually no = difference in a hobby-based setting. Another terrible confession: you = can use older analog video patch panels (actually 50 ohm, not 75 ohm) = for antenna patching right up through 1GHz with little, if any = discernable problems unless you have lab instruments and too much time = on your hands (apparently like I do).

Bottom line-follow the directions-noise figure, absolute level, and = group delay all go wacky...it just may not be where you are looking (you = tune 11.175MHz, frequency response is wacky at 12 MHz-that sort of = thing)...or you may not be instrumented to notice it.

Note that improper terminations, etc at VHF and UHF, etc are very = noticeable.

hope that helped and didn't further shroud the facts.

John Collins Oregon ----- Original Message -----

From: Daiungoed@aol.com To: PREMIUM-RX@kahuna.sdsu.edu Sent: Monday, February 18, 2002 1:51 PM

Subject: Prem-Rx: TERMINATORS

Hi

A simple question, but one which finds me in two minds. I have a = few multicouplers made by different manufacturers, and they all seem to = recommend terminating unused outputs, but there seems to be no = difference in reception whether they are terminated or not, why do you = have to do it, and what will failing to do it cause?? Any offers?? Dave

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content= 3D"MSHTML 6.00.2600.0" name= 3DGENERATOR> <STYLE> </STYLE> </HEAD>
<BODY bgColor= 3D#ffffff> <DIV> <FONT face= 3DArial size= 3D2> Hi Dave &
group, </FONT> </DIV> <DIV> <FONT face= 3DArial size= 3D2> </FONT> &nbsp; </DIV>
<DIV> <FONT face= 3DArial size= 3D2> I'll comment because I have just = completed sweeps, etc
```



Date: Mon, 18 Feb 2002 19:07:22 -0500

From: Arthur Shulman <dentist@nornet.on.ca>

Subject: Re: Prem-Rx: TERMINATORS John, thank you for an excellent description of the problem from your personal example. Stridsberg mentions that port-to-port isolation suffers when ports are unterminated, and your measurements seem to back that up by inference.

Of course in a hobby setting, especially at HF, this may not be critical. Where I do most of my listening, at VHF/UHF, isolation is important, although absolute levels may not be. This is because I use a number of receivers simultaneously, and L/O feedthrough to the antenna terminal often causes mutual interference.

Would you care to comment on the merits, if any, of low-gain amplifiers placed either pre or post splitting to further improve isolation?

Also, where does one obtain 50 ohm video patch panels? It was my belief that they were all 75 ohm, even to the extent of using 75 ohm BNC connectors.

Arthur Shulman - ----- refmon wrote:

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> > ----- Original Message ----- >

From: Daiungoed@aol.com > To: PREMIUM-RX@kahuna.sdsu.edu > Sent: Monday, February 18, 2002 1:51 PM >

Subject: Prem-Rx: TERMINATORS >

Hi

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-----  
Date: Mon, 18 Feb 2002 17:37:32 -0800

From: "refmon" <monitor@referencevideo.com>

Subject: Re: Prem-Rx: TERMINATORS Hi Arthur et al,

Yeah, it's sort of all of the above with all the concerns mentioned so far-certainly port-to-port isolation will vary...oddly, any of the properties may get worse or better at random frequencies depending on how the mismatches and reflections subtract or add, etc etc.

I have not experimented with the addition of amps pre or post for the purpose of improved isolation port-to-port...I routinely run a high gain LNA (gaas fet about 16-18db gain) mounted at the antenna and have had success treating the LNA as driver for the coax and passive splitter ...loss through the splitter helps return the levels seen at the receivers to normal levels, which preserves dynamic range, etc...a few db net gain never hurts except in cities where all bets are off with affordable equipment.

I'm assuming your reference to VHF/UHF regards scanners, so I'll ask you to contact me offline if that's the case, but I have seen the LO leakage problems with, for example, a bunch of bearcats or unidens on a common splitter...however, (maybe this can stay on this list after all), I do not see that problem with high end stuff like Watkins Johnson 8969, Icom R9000 (and others), etc...these all have extensive measures taken to trap the LO prior to leaking out the antenna port. I guess the short answer to your exact question is "no", because I haven't experimented with amps for that purpose.

50-ish ohm patch panels are everywhere-search on ebay. Here's the deal: historically, analog video of the kind we've all watched for years, has been (and continues to be) cabled with 75 ohm cables...however, a close look at connectors and patching equipment reveals that the hardware is not true 75 ohm (rather closer to 50 ohm). For a low Z signal at 1 volt p-p with a frequency span of DC thru 10 MHz max (4.5MHz for composite video), the minor mismatches don't matter at all. Now that digital video (true HDTV runs 1.54 GHz square waves) is here, though, there is now "true 75 ohm" hardware required-now it's considered a feature to be 75 ohm after all...go figure. In fact, the BNC connectors used for video have been 50 ohm BNC's with modified crimp areas and center pin diameters to fit 75 ohm coax-but not true, real 75 ohm. No matter what anybody says, a patch panel of the "vintage" variety is around 50 ohms...close, but a fairly violent impedance mess due to the transition from coax to connector, to entry post, to switch, to switch bar, to exit post, to connector, to coax...actually these things do pretty well all things considered. I'm sitting here sweeping an old video patch panel to 1.5 GHz-flat to 600MHz, then 1.5db roll off up to 1.5 GHz. That's frequency response, not return loss (vswr)...that wobbles all over the place. So, in a lab, I'd be shot for this, but at home it works just fine. Also note that terminating resistors in video patch panels are 75 ohm and essentially impossible to change in most cases-doesn't matter much actually, because you rarely engage the internal resistor in a monitor station setup---if need be, terminate the patch panel with a 50 ohm BNC.

By the way, I wouldn't transmit through one of these patch panels. There's one other hitch-video patch cords use 75ohm cable, so you either buy video patch cords and remove/replace connector/cable (use RG58) or buy 50 ohm patch cables. Also note that most used patch panels look bullet-scarred because TV people seem unable to stick a round peg in a round hole without at least a half-dozen tries (it's ok, I'm one of "them").

I was fortunate enough to score some 50 ohm patch panels with "N" connectors, which I use for my antenna RF at all frequencies...I use old video panels for IF's and video (demod videos, not TV video).

anyway, that's the story from here

John \_\_\_\_\_

- ----- Original Message -----

From: "Arthur Shulman" <dentist@nornet.on.ca> To: "refmon" <monitor@referencevideo.com> Cc: <Daiungoed@aol.com>; <PREMIUM-RX@kahuna.sdsu.edu> Sent: Monday, February 18, 2002 4:07 PM

Subject: Re: Prem-Rx: TERMINATORS

> John, thank you for an excellent description of the problem from your > personal example. Stridsberg mentions that port-to-port isolation > suffers when ports are unterminated, and your measurements seem to back > that up by inference.

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> > Arthur Shulman > -----

-----  
Date: Mon, 18 Feb 2002 20:59:25 -0600

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>

Subject: Prem-Rx: Patch bays At 19:07 2002-2-18 -0500, you wrote: >Also, where does one obtain 50 ohm video patch panels? It was my belief >that they were all 75 ohm, even to the extent of using 75 ohm BNC >connectors.

I have a patch bay in my rack made by Whistler with Trompeter connectors. I miked the connectors and they calculate out to be 70 ohm (assuming dielectric constant of air in patch bay). Yet I have a bank of identical connectors (same exact dimensions) with built-in 50 ohm terminations.

I can see the patch bay with a Riser Bond TDR. The TDR has picosecond pulses and the reflections are clear but not very big. The patch bay has no discernible effect on my antennas when tested to the high limit of an MFJ 259B. There is only a slight difference in signal strength of 950 MHz local studio to transmitter links with the antenna direct or the patch bay inline when measured by either the dBm signal strength meter on both of my WJ-8617B(S1) receivers or an HP-141T analyzer. I suppose if I had a fancy sweeper or more state of the art receivers and test gear, I might be more picky. Instead, I stopped worrying about it and patch everything below 1 GHz through it. The convenience is hard to beat. Nevertheless, it does look a little funny with five runs of Andrews Superflex coming out the back side in the middle of all the 9913.

Terry O'

-----  
Date: Tue, 19 Feb 2002 06:10:49 -0800

From: "Don Nelson" <ulformat@teleport.com>

Subject: Re: Prem-Rx: TERMINATORS Here's the information on termination requirements for Stridsberg Products direct from John Stridsberg:

- ----- Original Message -----

From: "John Stridsberg" <jstridsb@iamerica.net> To: "Don Nelson" <ulformat@teleport.com> Sent: Monday, February 18, 2002 7:29 PM

Subject: Re: Termination of unused outputs of Multicouplers?

Hello Don,

Good to hear from you.

You may leave unused ports floating. Unused ports will not affect the used ports that much, in other words, you will not be able to detect the difference in the receivers. What termination really does is to "balance" the distribution of gain over the frequency range, say, between 500 kHz to 50 MHz. On a swept signal test (with a network analyzer, for example) the signal-gain vs. frequency exhibits a "flatter" response. However, this "flattening" of the response curve is only within a two to three dB.



Same response "flattening" is also achieved with the most important specifications in the coupler, the "Port-to-Port Isolation"

In some precision monitoring applications involving computerized sampling of signal outputs, it is necessary to terminate all unused ports for system balance.

Have a good one!

John Stridsberg

Of course, my response is specific to our design, other manufactures multicoupler(s) may or may not have the same termination requirement.

>

Hi

John

> > I have a number of your MCA108

> > Should I be terminating the unused outputs with 50ohm loads (std BNC 50 ohm). Can I just leave them floating?

> > Best regards > Don Nelson > Oregon >

- ----- Original Message -----

From: "mikea" <mikea@mikea.ath.cx> To: <Daiungoed@aol.com> Cc: <PREMIUM-RX@kahuna.sdsu.edu> Sent: Monday, February 18, 2002 2:27 PM

Subject: Re: Prem-Rx: TERMINATORS

On Mon, Feb 18, 2002 at 04:51:06PM -0500, Daiungoed@aol.com wrote: >

Hi

> A simple question, but one which finds me in two minds. I have a few > multicouplers made by different manufacturers, and they all seem to recommend > terminating unused outputs, but there seems to be no difference in reception > whether they are terminated or not, why do you have to do it, and what will > failing to do it cause?? Any offers?? Dave

The literature that came with my Stridsberg MCA-204 talks about slight degradation of the noise figure on the in-use ports if a not-in-use port is left unterminated.

I suspect that slight really is slight, since I've done A-B tests and haven't been able to hear the difference.

- -- Mike Andrews mikea@mikea.ath.cx Tired old sysadmin since 1964

-----  
Date: Tue, 19 Feb 2002 08:13:54 -0600

From: "herschel p mccullough" <w5hpm@airmail.net>

Subject: Re: Prem-Rx: TERMINATORS not withstanding what the boss sez.. I have all Stridsberg units here and just come and go in and out at will and experience no degradation at all by leaving open ports.. go for it... mac/mc - ----- Original Message -----

From: Don Nelson <ulformat@teleport.com> To: <Daiungoed@aol.com>; mikea <mikea@mikea.ath.cx> Cc: <PREMIUM-RX@kahuna.sdsu.edu>; <jstridsb@iamerica.net> Sent: Tuesday, February 19, 2002 8:10 AM

Subject: Re: Prem-Rx: TERMINATORS

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> > ----- Original Message ----- >

From: "John Stridsberg" <jstridsb@iamerica.net

> > To: "Don Nelson" <ulformat@teleport.com

> > Sent: Monday, February 18, 2002 7:29 PM >

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> > > > Best regards

> > Don Nelson

> > Oregon

> > > > ----- Original Message ----- >

From: "mikea" <mikea@mikea.ath.cx

> > To: <Daiungoed@aol.com

> > Cc: <PREMIUM-RX@kahuna.sdsu.edu

> > Sent: Monday, February 18, 2002 2:27 PM >

Subject: Re: Prem-Rx: TERMINATORS

> > > On Mon, Feb 18, 2002 at 04:51:06PM -0500, Daiungoed@aol.com wrote:

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the difference.  
> > -- > Mike Andrews > mikea@mikea.ath.cx > Tired old sysadmin since 1964  
> > > > > > >  
> > >

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Date: Wed, 20 Feb 2002 21:17:00 +0900  
From: akio fujikawa <jg3gog@jarl.com>  
Subject: Prem-Rx: RA6790GM CPU,RAM Hello!

I search CPU,RAM for RA6790GM. Please send information about it...  
akio jg3gog@jarl.com

-----  
Date: Wed, 20 Feb 2002 16:46:49 +0100 (CET)  
From: =?iso-8859-1?q?MMG?= <soundsdreams@yahoo.com>  
Subject: Prem-Rx: Entra en SOUNDSDREAMS - --0-95338007-1014220009=:36318 charset=iso-8859-1 Content-Transfer-Encoding: 8bit

Entra en....

**SOUNDSDREAMS**

Escucha mis creaciones Musica & MP3.... Wav's & Loops, sonidos para teclados (Korg x3, Yamaha A3000) Emuladores, (PlayStation, Nintendo-64, Commodore-64) Software, (Internet, Audio e Video, Sms, Cd-r, Juegos, etc....)

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--- Do You Yahoo!? Yahoo! Messenger! Comunicación instantánea gratis con tu gente. - --0-95338007-1014220009=:36318 charset= iso-8859-1 Content-Transfer-Encoding: 8bit

< P align= center> < FONT color= red size= 6> Entra en.... </FONT> </P> < P align= center> < FONT size= 7> < A href= "http://www.soundsdreams.com/" target= \_blank> SOUNDSDREAMS </A> </FONT> </P> < UL> < LI> < STRONG> < FONT style= "BACKGROUND-COLOR: #7b68ee" color= #ffffff size= 4> Escucha mis creaciones</FONT> </STRONG> < LI> < STRONG> < FONT style= "BACKGROUND-COLOR: #7b68ee" color= #ffffff size= 4> Musica & MP3....</FONT> </STRONG> < LI> < DIV align= left> < FONT style= "BACKGROUND-COLOR: mediumslateblue" color= white size= 4> < STRONG> Wav's & Loops, sonidos para teclados (< FONT size= 2> Korg x3, Yamaha

A3000</FONT>)</STRONG></FONT></DIV> <LI> <DIV align= left>< FONT style= "BACKGROUND-COLOR: mediumslateblue" color= white size= 3>< STRONG>< FONT size= 4> Emuladores</FONT>, (< FONT size= 2> PlayStation, Nintendo-64, Commodore-64</FONT>)</STRONG></FONT></DIV> <LI> <DIV align= left>< FONT style= "BACKGROUND-COLOR: mediumslateblue" color= white size= 3>< STRONG>< FONT size= 4> Software</FONT>, (< FONT size= 2> Internet, Audio e Video, Sms, Cd-r, Juegos, etc</FONT> ....)</STRONG></FONT></DIV></LI></UL>< p>< hr size= 1>< b> Do You Yahoo!</b>< br>< a href= http://es.yahoo.com/mailtagline-messenger/?http://es.messenger.yahoo.com/> Yahoo! Messenger!</a>< br> Comunicación instantánea gratis con tu gente. - -0-95338007-1014220009= :36318--

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End of premium-rx-digest V1 #177 \*\*\*\*\*  
Subject: premium-rx-digest V1 #178  
premium-rx-digest Saturday, March 2 2002 Volume 01 : Number 178  
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----- Date: Thu, 21 Feb 2002 11:53:49 -0800  
From: "Paul" <radioboy@telus.net>  
Subject: Prem-Rx: Cubic R-3080 opinions sought Hello group,

It's been a while since I have made a post, lot's of other activities in life you know.

I have an opportunity to acquire an R-3080 and am wondering what the current opinion is on these RXs? I have looked thru previous archives and noted some AGC problems and high noise floor. Has anyone made any mods to improve these units for better SWL performance? I have a RACAL 1792 and 6790GM which I really like. I would like to try others RXs though.

Look forward to your replies.

Best regards,

Paul Wende VE7KHz

-----  
Date: Thu, 21 Feb 2002 12:46:14 -0800  
From: "refmon" <monitor@referencevideo.com>  
Subject: Re: Prem-Rx: Cubic R-3080 opinions sought Hi Paul & group,

Yes, the R3080 is essentially 1/2 of a R3030 dual setup. It uses the same set of innards, just once, though. From an SWL/utility monitor perspective, everything you've heard is probably true-agc click on strong signal start, annoying dump of AGC hang circuit returning to full empty channel gain, high gain idle roar drowns out the weak ones, etc. I have developed and tested round 1 of a series of mods that solves or minimizes each of these. One would also note, if faced with enough receivers side-by-side, that the alignment/calibrations vary all over the place-I am also developing a slightly modified alignment procedure which is repeatable from chassis-to-chassis so in a bank of receivers, they can all respond in similar fashion. Note, though, you'll need multiple module extension capability, which is unavailable from Cubic and I've only found the parts two module sets...it's the coax I/O connections that gets you.

Note there's nothing wrong with the Cubic design-in fact it's really bullet proof and nicely modular...we as SWL's are using the receivers well outside their original intended scope of tasks...probably the biggest demand we make on them is to sit glued to the headsets for hours listening to virtually minimum discernable signals all night-these were developed to live in a rack of computer controlled receivers...the only person to actually listen was probably the maintenance guy-hence the no-knobs/dials/switches, etc...all the functions are there, they're just optimized for access by computer.

By the way, what species of remote control does this receiver have? What sort of signal breakout is in the rear (terminal block & D connector or circular Military-type? What filter widths does the receiver have...these mechanical filters are top of the line, in any case. Is there a wired speaker output-yes, believe it or not, in some configs, there is no speaker output-rare, but true. Easily added though-so easy, one wonders why it wasn't just included-literally all you do is add some pins to a connector and string a wire to spare pins in the rear..

If you don't want the receiver, I may take it...where are you getting it & how much? Contact me direct for info either way.

regards

John Collins - ----- Original Message -----

From: "Paul" <radioboy@telus.net> To: <premium-rx@kahuna.sdsu.edu> Sent: Thursday, February 21, 2002 11:53 AM

Subject: Prem-Rx: Cubic R-3080 opinions sought

> Hello group,

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> > Look forward to your replies.

> > Best regards,

> > Paul Wende > VE7KHz >

-----  
Date: Fri, 22 Feb 2002 22:05:18 -0800

From: Larry Gadallah <larry@gadallah.com>

Subject: Re: Prem-Rx: (Off topic, but relevant) DX been worse lately? Hi Chuck and Jan:

I did some research into this on the web, and although I couldn't find the actual paper on the web, here's a link with a little information:

[http://www.antarctica.ac.uk/News/Press\\_Releases/1998/19980911.html](http://www.antarctica.ac.uk/News/Press_Releases/1998/19980911.html)

Further to Jan's questions, I think the concept is that while the ionosphere has multiple layers, and these change in height and thickness due to a wide variety of factors, the overall average height of the lowest layer of the ionosphere has been dropping, possibly due to the influence of global warming due to increased amounts of greenhouse gases.

Cheers,

On Sun, Feb 17, 2002 at 06:00:37PM -0600, Chuck Hutton wrote: > Larry:

> > Did you catch the name of the physicist? If not, what network / channel was > this on, in case their web site has something helpful?

> > Thanks for mentioning this.

> > Chuck

> > -----Original Message----- >

From: owner-premium-rx@engineering.sdsu.edu > [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Larry > Gadallah > Sent: Sunday, February 17, 2002 7:36 PM > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: (Off topic, but relevant) DX been worse lately?

> > > Hi all:

> > I just saw something on the TV that wasn't directly related to the > Prem-RX list, but I thought a lot of those folks here who, unlike > me, actually connect their premium RXs to antennae and listen would > be interested in it regardless.

> > I saw an interview with a British physicist who has been conducting > studies into the ionosphere for a long time (38 years), and recently > has been studying measurements made of the height of the ionosphere > over Antarctica. Apparently it's been getting lower by an average > of 0.2 km per year for the time he's been collecting data (again, > 38 years). These results have been correlated with results from > groups in Finland and Germany, so the effect is likely global. The > hypothesis is that the temperature of the ionosphere is being affected > by the temperature of the lower layers of the atmosphere, which in > turn are being heated by greenhouse gas emissions.

> > Regardless, needless to say, if the ionosphere gets lower, the DX > will get worse for all of us :-).

> > 73, > -- > Larry Gadallah, VE6VQ larry AT gadallah DOT com > 33.06.00.612N 117.07.05.916W 210Z <http://www.gadallah.com/~larry> > Key fingerprint = D6 79 5D 9D 41 27 74 03 68 FD D7 F3 86 68 EB A5 >

-- Larry Gadallah, VE6VQ larry AT gadallah DOT com 33.06.00.612N 117.07.05.916W 210Z <http://www.gadallah.com/~larry> Key fingerprint = D6 79 5D 9D 41 27 74 03 68 FD D7 F3 86 68 EB A5

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Date: Sat, 23 Feb 2002 18:56:28 +0100

From: "John Wilson" <johnwilson@freezone.co.uk>

Subject: Prem-Rx: 1EP1 CRT Help, I have a Tracor frequency difference meter Type 527A which is great for keeping my master oscillator source under constant check against an LF frequency standard (60kHz) which I receive on a Tracor 900A receiver. It uses a miniature CRT type 1EP1 to show a Lissajous figure, and inevitably I now have a neat circle burnt into the tube phosphor. Can anyone help with a source for this tube, since the UK tube dealers don't seem to have one. Any and all help would be gratefully received. Even commiserations would help the pain!! 73 John

- ----- John Wilson Stone Hill Kings Nympton Uمبرleigh Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Sat, 23 Feb 2002 11:25:27 -0800

From: Craig McCartney <craigmc@pacbell.net>

Subject: RE: Prem-Rx: 1EP1 CRT John,

Try contacting Bill Henry at HAL Communications. They made several products (ST-6000, ST-8000 & RS-2100 come to mind) that used a small 1" CRT. He may be able to provide suitable replacements for the 1EP1 from his spares stock, or suggest a source.

The RS-2100 manual that I have in front of me has a D311GH marked in the schematic for the CRT type; an ST-6000 schematic shows a type DS-130; an ST-8000 schematic shows a type D7-232. Some, or all, of these are OK subs for an 1EP1 if memory serves.

Good luck, Craig

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of John Wilson Sent: Saturday, February 23, 2002 9:56 AM To: premium

Subject: Prem-Rx: 1EP1 CRT

Help, I have a Tracor frequency difference meter Type 527A which is great for keeping my master oscillator source under constant check against an LF frequency standard (60kHz) which I receive on a Tracor 900A receiver. It uses a miniature CRT type 1EP1 to show a Lissajous figure, and inevitably I now have a neat circle burnt into the tube phosphor. Can anyone help with a source for this tube, since the UK tube dealers don't seem to have one. Any and all help would be gratefully received. Even commiserations would help the pain!! 73 John

- ----- John Wilson Stone Hill Kings Nympton UMBERLEIGH Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Sun, 24 Feb 2002 20:48:47 -0500

From: "Howard L Ritter, Jr" <hlritter@mindspring.com>

Subject: Prem-Rx: Technical-book auctions? Please excuse the bandwidth, but I have a number of fairly recent college and professional-level texts in math, physics, and astronomy that are surplus to my needs (and likely not to be of interest to many on these groups) that I'd like to put up for auction. I've never auctioned anything, but I suspect that there are better places to auction technical books than ePay.

Does anyone know of online auctions dedicated to the sale of technical textbooks?

TIA,

--howard n7exn

-----  
Date: Sun, 24 Feb 2002 20:14:24 -0600

From: David Stinson <arc5@ix.netcom.com>

Subject: Prem-Rx: Re: [Milsurplus] Technical-book auctions? "Howard L Ritter, Jr" wrote: > I suspect that there are better places to auction technical books than > ePay....

Actually, No- there are not any better places. Not by a considerable margin. The closest is Yahoo and it is miles back in the dust- fit only for K-tel junk. That's not to say you'll necessarily do well with them on Ebay. But you will do better there than anywhere else. Kind Regards, Dave S.

-----  
Date: Sun, 24 Feb 2002 18:38:42 -0800

From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>

Subject: Prem-Rx: New Member- Hans de Zeeuw ( Netherlands )

- -----=\_NextPart\_000\_00AE\_01C1BD62.7BB52BC0

Gentlemen:

Hans de Zeeuw, joins us from Amsterdam, Holland. He has been an active = SWL type since 1974. His area of specific interest is the tropical = bands and AM in the area of 5.8 and 6.3 MHz. Hans lives in a fourth = floor flat which allows him to use the roof of his building to = experiment with various antenna (what is the plural of antenna anyway, = antennae?).





- -----=\_NextPart\_000\_0007\_01C1BD88.72F511F0

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face=3DArial color=3D#0000ff size=3D2>It is if you took Latin from Mrs Martin in 9th and  
10th grades! The unwashed heathen&nbsp;hordes (known to the Romans as Barbarii) may have used  
= "antennas" on their tactical comsets....</FONT></SPAN></DIV> <DIV><SPAN  
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size=3D2></FONT></SPAN>&nbsp;</DIV> <DIV><SPAN class=3D933120704-  
25022002><FONT face=3DArial color=3D#0000ff =

size=3D2>--howard n7exn</FONT></SPAN></DIV> <BLOCKQUOTE dir=3Dltr  
style=3D"MARGIN-RIGHT: 0px"> <DIV class=3DOutlookMessageHeader dir=3Dltr  
align=3Dleft><FONT face=3DTahoma size=3D2>-----Original Message-----<BR><B>

From:</B> owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-  
rx@engineering.sdsu.edu]<B> On Behalf Of </B> Greg = W. Bailey<BR><B> Sent:</B>  
Sunday, February 24, 2002 9:39 PM<BR><B> To:</B> =

Premium-Rx@kahuna.sdsu.edu<BR><B>

Subject:</B> Prem-Rx: New Member- = Hans de Zeeuw ( Netherlands  
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size=3D4></FONT> &nbsp;</DIV></BLOCKQUOTE></BODY></HTML>

- -----=\_NextPart\_000\_0007\_01C1BD88.72F511F0--

Date: Sun, 24 Feb 2002 23:13:59 -0500

From: "Howard L Ritter, Jr" <hlritter@mindspring.com>

Subject: Prem-Rx: RE: Technical-book auctions? Thanks to all who replied. I will first submit a list of titles to the groups. Otherwise it sounds as if ePay may be the place. I'd be happy to report back results if it does come to this.

--howard n7exn

Date: Mon, 25 Feb 2002 16:10:45 -0500

From: "C. van Ravenswaaij" <cortec@wanadoo.nl>

Subject: Prem-Rx: Racal 6793 (A) Hi all,

Can anyone tell me the difference between a Racal 6793 and a Racal 6793A receiver?

Thanks in advance,

Cornel van Ravenswaaij

Date: Mon, 25 Feb 2002 18:55:58 -0600  
From: "John Reed" <jreed@ponca.net>  
Subject: Re: Prem-Rx: Racal 6793 (A) - -----Original Message-----

From: C. van Ravenswaaij <cortec@wanadoo.nl> To: premium-rx@kahuna.sdsu.edu <premium-rx@kahuna.sdsu.edu> Date: Monday, February 25, 2002 3:27 PM  
Subject: Prem-Rx: Racal 6793 (A)

> Hi all,

> > Can anyone tell me the difference between a Racal 6793 and a Racal 6793A > receiver?

> > Thanks in advance,

> > Cornel van Ravenswaaij

Here's what the RA6793A manual has to say about this:

"The standard receiver was modified to provide: RF input protection from high level CW and/or impulse signals; a 33 channel band sweep of selected frequency with selectable dwell time and threshold level; and, a 100 channel scan memory (in decade intervals) with halt on active channel exceeding a preset threshold level."

It goes on to describe the hardware mods made to the standard receiver to turn it into an A.

John Reed >

-----  
Date: Tue, 26 Feb 2002 06:26:07 -0800  
From: Jerry Kincade <w5kp@swbell.net>  
Subject: Re: Prem-Rx: Racal 6793 (A) In other words, it was jacked up a bit to to more effectively compete with the 590A? :-) 73, Jerry W5KP

- ----- Original Message -----

From: "John Reed" <jreed@ponca.net> To: <premium-rx@kahuna.sdsu.edu> Sent: Monday, February 25, 2002 4:55 PM

Subject: Re: Prem-Rx: Racal 6793 (A)

>> -----Original Message----- >

From: C. van Ravenswaaij <cortec@wanadoo.nl>

>> To: premium-rx@kahuna.sdsu.edu <premium-rx@kahuna.sdsu.edu>

>> Date: Monday, February 25, 2002 3:27 PM >

Subject: Prem-Rx: Racal 6793 (A)

>>>> Hi all,

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>>>> Thanks in advance,

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>> It goes on to describe the hardware mods made to the standard receiver to > turn it into an A.

>> John Reed

>>>>

-----  
Date: Sat, 2 Mar 2002 19:00:51 +0100  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: premium rx ?

- -----=\_NextPart\_000\_0013\_01C1C21C.92B51BA0

Hi all,

Yes, had them all.. Plessey pr2250, Collins 651S1, JRC NRD61a, NRD 92, = Skanti 5001, R&S EK47, 56 Racal RA6793A etc and I'm waiting for the = Plessey PR2282A to arrive in may. For the time being I'm using a Racal = RA17l with all the options available with it (LF convertor, = pre-selektor, SSB unit, both ISB units, only RA66 missing). Are we also = ending up like the audio freaks convinced that the older tube gear is = better (which I think that is happening) ? I'm not talking about digital = read-out, utility etc. just WHAT I receive and the QRM from my Sony = wirde screen tv and the other equipment which doesn't seem to bother the = old valve receiver...

OK, I know, I need hand and feets to tune the gear, but so what ?

To any of you reacting to my advertisement offering the older Racal = stuff, sorry, won't sell it for the time being, unless I've agreed to = sell

Regards,

Herbert

- -----=\_NextPart\_000\_0013\_01C1C21C.92B51BA0

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<DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> Regards,</FONT></DIV>
<DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> Herbert</FONT></DIV>
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- -----=\_NextPart\_000\_0013\_01C1C21C.92B51BA0--

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End of premium-rx-digest V1 #178 \*\*\*\*\*  
Subject: premium-rx-digest V1 #179  
premium-rx-digest Sunday, March 10 2002 Volume 01 : Number 179  
-----

----- Date: Sun, 3 Mar 2002 08:19:42 -0700

From: "David and Roxanna McGinnis" <drmcginnis@peoplepc.com>  
Subject: Prem-Rx: FS RA6790GM OR TRADE

- -----=\_NextPart\_000\_0065\_01C1C28C.2B6C1C80

charset="Windows-1252"

FOR TRADE or SALE

RACAL RA6790GM R2174A receiver for ICOM 706MKIIG. or about \$750 Cash.

Receiver has 5 filters, backlight, BITE.

Call for details.

David McGinnis N7MJW 406-258-6031

- -----=\_NextPart\_000\_0065\_01C1C28C.2B6C1C80

charset="Windows-1252"

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</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2>FOR TRADE
or SALE</FONT></DIV> <DIV>&nbsp;</DIV> <DIV><FONT face= 3DArial
size= 3D2>RACAL RA6790GM R2174A receiver for ICOM =
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<DIV>&nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2>David
McGinnis< BR>N7MJW< BR>406-258-6031</FONT></DIV></BODY></HTML>
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- -----=\_NextPart\_000\_0065\_01C1C28C.2B6C1C80--

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Date: Mon, 4 Mar 2002 08:22:36 -0800  
From: "Greg Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: Norlin (Applied communications), otherwise disregard

- -----=\_NextPart\_000\_00AD\_01C1C355.BDBAB190

Gentlemen:

The List has received the following inquiry regarding Norlin or Applied Communications. If you have information that may assist Al, please contact him directly-

Thanks

Greg

-----Original Message-----

From: Al Smithson [mailto:flyerwork@austin.rr.com] Sent: Thursday, February 28, 2002 7:06 PM To: Greg.Bailey@sdsu.edu

Subject: Norlin (Applied communications)

Greg,

I am trying to locate the Applied Communications ( Norlin) co. to obtain some information about an RF amp manufactured by them. Through a Google search I turned up your mail list that deals with Rcv'rs. Could you lead me to someone that knows about their products or any info on the company.

Your help would be greatly appreciated.

Regards,

Al Smithson Chief Engineer Granite House Productions Austin TX

- -----=\_NextPart\_000\_00AD\_01C1C355.BDBAB190

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04032002><FONT size= 3D4>Gentlemen:</FONT></SPAN></DIV> <DIV><SPAN
class= 3D869421816-04032002><FONT size= 3D4></FONT></SPAN> &nbsp;</DIV>
<DIV><SPAN class= 3D869421816-04032002><FONT size= 3D4>The List has = received the
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class= 3D869421816-04032002><FONT size= 3D4></FONT></SPAN> &nbsp;</DIV>
<DIV><SPAN class= 3D869421816-04032002><FONT size= 3D4>Thanks</FONT></SPAN></DIV> <DIV><SPAN class= 3D869421816-
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class= 3D869421816-04032002><FONT size= 3D4>Greg</FONT></SPAN></DIV>
<DIV><SPAN class= 3D869421816-04032002><FONT size= 3D4></FONT></SPAN> &nbsp;</DIV> <DIV><SPAN class= 3D869421816-
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```
From:</B> Al Smithson [mailto:flyerwork@austin.rr.com]<BR><B> Sent:</B> Thursday,
February = 28, 2002 7:06 PM<BR><B> To:</B> Greg.Bailey@sdsu.edu<BR><B>
```

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Subject:</B> Norlin = (Applied communications)<BR><BR></FONT></DIV>
<DIV><FONT face= 3D"Times New Roman" size= 3D2>Greg.</FONT></DIV>
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products or any info on the company.</FONT></DIV> <DIV><FONT face= 3D"Times New
Roman" size= 3D2></FONT> &nbsp;</DIV> <DIV><FONT face= 3D"Times New Roman"
size= 3D2>Your help would be = greatly appreciated.</FONT></DIV> <DIV><FONT
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face= 3D"Times New Roman" size= 3D2>Regards,</FONT></DIV> <DIV><FONT
face= 3D"Times New Roman" size= 3D2></FONT> &nbsp;</DIV> <DIV><FONT
face= 3D"Times New Roman" size= 3D2>Al Smithson</FONT></DIV> <DIV><FONT
face= 3D"Times New Roman" size= 3D2>Chief = Engineer</FONT></DIV> <DIV><FONT
face= 3D"Times New Roman" size= 3D2>Granite House Productions</FONT></DIV>
<DIV><FONT face= 3D"Times New Roman" size= 3D2>Austin
TX</FONT></DIV></BLOCKQUOTE></BODY></HTML>
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- -----=\_NextPart\_000\_00AD\_01C1C355.BDBAB190--

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Date: Wed, 6 Mar 2002 14:38:31 +0100  
From: "Hans" <dxhunter.zeeuw@hccnet.nl>  
Subject: Prem-Rx: ISB option Racal RA6793a any good?? Hello everyone,

Can someone tell me if it is any good to build in the ISB option in the case of a Racal RA6793a? The purpose is to improve the AM reception. Is the effect comparable to selectable AM sync in for example, the Drake R8B?

I would like to eliminate most of the selective fading and side band QRM in the amplitude modulation. Is there someone who has a spare ISB option and willing to sell it to me?

Thanks in advance and regards from Amsterdam, Hans de Zeeuw

-----  
Date: Wed, 6 Mar 2002 08:59:53 -0800  
From: "Steve Burney" <burneysm@earthlink.net>  
Subject: RE: Prem-Rx: Wanted: WJ-8711 Firmware V04.01.03 Still looking for this...

I believe the firmware for the HF-1000 will also work (at least I'm willing to try it).

Mr. Garland: I have tried to email you a couple times with no response...I would be interested in any help you can offer.

Any help is appreciated Steve Burney

- -----Original Message-----

From: James C. Garland [mailto:4cx250b@miavx1.acs.muohio.edu] Sent: Wednesday, February 06, 2002 3:39 AM To: burneysm@earthlink.net

Subject: Re: Prem-Rx: Wanted: WJ-8711 Firmware V04.01.03 HI Steve, Is the WJ-8711 the same as the HF1000? If so, I may be able to help you. Jim At 11:30 PM 2/5/2002, you wrote: > Subject says it all... > I am in need of the older (04.01.03) firmware for the WJ-8711. > I am willing to buy/borrow etc a PROM, or I would even take a file that I > can upload using a programmer.

> > Anyone?

> > Thanks in advance, > Steve

-----  
Date: Wed, 06 Mar 2002 12:40:42 -0800  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: WJ8888B-2 Hello everyone,

Ref: Watkins Johnson WJ8888B-2 ( Quad 8 )

Does anyone have any information regarding the Watkins Johnson WJ8888B-2 HF Receiver. I am looking for the Service Manual for this radio. Would appreciate if anyone can help or direct me to where I can find it.

Thank you, Ahmet Gundes

-----  
Date: Wed, 06 Mar 2002 13:22:29 -0500  
From: Arthur Shulman <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: Wanted: WJ-8711 Firmware V04.01.03 Steve - I might have what you want - I'll check after 1800 EST.

Arthur

Steve Burney wrote:

> Still looking for this...

> > I believe the firmware for the HF-1000 will also work (at least I'm > willing to try it).

> > Mr. Garland: I have tried to email you a couple times with no > response...I would be interested in any help you can offer.

> > Any help is appreciated > Steve Burney

> > -----Original Message----- >

From: James C. Garland [mailto:4cx250b@miavx1.acs.muohio.edu] > Sent: Wednesday, February 06, 2002 3:39 AM > To: burneysm@earthlink.net >

Subject: Re: Prem-Rx: Wanted: WJ-8711 Firmware V04.01.03

> > HI Steve, > Is the WJ-8711 the same as the HF1000? If so, I may be able to help you. > Jim > At 11:30 PM 2/5/2002, you wrote:

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> > I am willing to buy/borrow etc a PROM, or I would even take a file that > I

> > can upload using a programmer.

> > > > Anyone?

> > > > Thanks in advance,

> > Steve

-----  
Date: Wed, 06 Mar 2002 13:35:45 -0500  
From: Geoff Greer <greer86@attglobal.net>  
Subject: Re: Prem-Rx: WJ8888B-2 Hello,

Try [www.helmut-singer.de](http://www.helmut-singer.de) for older WJ manuals. I've had very good luck getting manuals for my RS160 system from them. Their copies are of excellent quality and their prices are quite reasonable.

Regards, Geoff Greer Amadeus Surplus

3/6/02 3:40:42 PM, Ahmet Gundes <ahmetg@eltronik.com> wrote:

> Hello everyone,

> > Ref: Watkins Johnson WJ8888B-2 ( Quad 8 )

> > Does anyone have any information regarding the Watkins Johnson > WJ8888B-2 HF Receiver. I am looking for the Service Manual for > this radio. Would appreciate if anyone can help or direct me to > where I can find it.

> > Thank you, Ahmet Gundes

> >

-----  
Date: Wed, 06 Mar 2002 19:11:41 -0500  
From: Al Klase <skywaves@bw.webex.net>  
Subject: Re: Prem-Rx: I SB option Racal RA6793a any good?? Hans,

ISB capability will not get you synchronous detection, as the BFO is free-running relative to the incoming carrier. The radio is stable enough that you can get useful reception this way, but you can do that with the basic radio using the USB/LSB function to select the best sideband.

I own a Racal 6772E with ISB. I tried connecting a stereo headset with one sideband to each ear. This really isn't worthwhile, in my opinion. If you close your eyes, you get vertigo due to the varying phase between the two sidebands. That is to say, the stereo image floats around. Interesting, but not worth any major expenditure.

Al

Hans wrote:

> > Hello everyone,

> > Can someone tell me if it is any good to build in the ISB option in the > case of a Racal RA6793a? The purpose is to improve the AM reception. Is the > effect comparable to selectable AM sync in for example, the Drake R8B?

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> > Is there someone who has a spare ISB option and willing to sell it to me?

> > Thanks in advance and regards from Amsterdam, > Hans de Zeeuw

-- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

-----  
Date: Wed, 06 Mar 2002 22:26:03 -0500

From: Arthur Shulman <dentist@nornet.on.ca>

Subject: Re: Prem-Rx: Wanted: WJ-8711 Firmware V04.01.03 Steve, I am posting to the List and inviting comments from members who might be able to help you.

I have the following 2 WJ EPROMS removed from my WJ HF-1000 when I upgraded to v4.01.03. Chips are marked as follows:

HF1000 871Y A2 U12 A2 U56 04.01.01 04.02.03

Pse advise if these are helpful to you.

Arthur Shulman -  
-----  
-----

Steve Burney wrote:

> Still looking for this...

> > I believe the firmware for the HF-1000 will also work (at least I'm > willing to try it).  
-----

Date: Wed, 6 Mar 2002 21:47:36 -0800

From: "Steve Burney" <burneysm@earthlink.net>

Subject: RE: Prem-Rx: Wanted: WJ-8711 Firmware V04.01.03 Arthur,

It is the 4.01.03 version that I'm after. This appears to be the 4.01.01 version (same as I have now).

Thanks for looking into it for me, but it appears I'll have to keep searching.



Regards, Steve

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu]  
On Behalf Of Arthur Shulman Sent: Wednesday, March 06, 2002 7:26 PM To:  
burneysm@earthlink.net Cc: premium-rx@kahuna.sdsu.edu

Subject: Re: Prem-Rx: Wanted: WJ-8711 Firmware V04.01.03 Steve, I am posting to the List and  
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Arthur Shulman -

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Steve Burney wrote:

> Still looking for this...

> > I believe the firmware for the HF-1000 will also work (at least I'm > willing to try it).

-----

Date: Wed, 06 Mar 2002 22:43:47 -0800

From: Nick Hall-Patch <nhp@ieee.org>

Subject: Re: Prem-Rx: decrease in F region altitude At 10:05 PM 2/22/02 -0800, larry@gadallah.com  
wrote: >Hi Chuck and Jan:

>> I did some research into this on the web, and although I couldn't find the >actual paper on the  
web, here's a link with a little information:

>> [http://www.antarctica.ac.uk/News/Press\\_Releases/1998/19980911.html](http://www.antarctica.ac.uk/News/Press_Releases/1998/19980911.html) >

**The paper is to be found on page 20775 of volume 103, No. A9, September 1, 1998 of the Journal of  
Geophysical Research. Interestingly, it refers to a number of other reports about the lowering of the F  
region peak over the years in other parts of the world.**

best wishes,

Nick

\*\*\*\*\*

Nick Hall-Patch Victoria, B.C. Canada

e-mail: [Nick\\_Hall-Patch@telus.net](mailto:Nick_Hall-Patch@telus.net) (mail forwarded via [nhp@ieee.org](mailto:nhp@ieee.org))

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Date: Thu, 07 Mar 2002 06:51:58 -0800

From: Craig McCartney <craigmc@pacbell.net>

Subject: Prem-Rx: Manuals for Cubic radios For those of you with Cubic receivers - if you have not  
discovered it yet...

<http://www.cubiccomm.com/techmans/techmans.htm>

.. is a page where you can download manuals for Cubic equipment. Looks like only current products, but I can't tell for sure.

Craig

-----  
Date: Fri, 8 Mar 2002 18:27:56 +0100  
From: "ADXB" <adxb.geo@yahoo.com>  
Subject: Prem-Rx: MUNDI MEDI A Marzo'2002 - -----=\_NextPart\_84815C5ABAF209EF376268C8

ASOCIACIÓN DX BARCELONA te presenta...  
MUNDO DX - MUNDIMEDIA Nº 247 MARZO'2002  
NUEVO FORMATO CD-ROM!!!

CONTENIDOS: "Recordando a un amigo" José Manuel Barrot Vox Populi "Radiodifusoras Internacionales" VOA "60 años de la VOZ DE AMERICA" (Audio) Caixa Forum Radioastronomía "Estamos solos en el Cosmos?" MUNDIellas - "Ellie Arroway" RADIOTECA "Radio OLOT 50 años" EL SOL "Estudio del Astro Rey" La Ionosfera y el Sol (Audio) La Joya de Arecibo Las Manchas Solares Radiodifusión Cubana "Radio Ciudad del Mar" Filatelia SUECA ¿Anticuada la Onda Corta? (Audio) Radiodifusora Nacional de Colombia BBC MUNDO.COM Receptores DIGITALES: TERRATEC La escucha de la Onda Corta (Audio) INFO DX: Noticias DX, Listas y frecuencias, Filatelia en Groenlandia. FM : Radio Inoxidable. SECCION SHAREWARE: Windows Media Player, Real Player, Winamp , Acrobat , MSN Messenger , WinZip. Radio Austria Internacional : Programa DX (Audio)

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DATOS PERSONALES Nombre: Dirección: Cod.Postal: Ciudad: Provincia: País: Teléfono: FORMAS DE PAGO MEDIANTE INGRESO EN LA CAJA POSTAL Num.: 1302 - 9260 - 40 - 0021167733.

\*Nota: Remitir a ADXB copia del ingreso efectuado.

MEDIANTE INGRESO EN LA CAJA DE TERRASSA Num.: 2074 - 0201 - 13 - 2035865757 \*Nota: Remitir a ADXB copia del ingreso efectuado.

MEDIANTE SELLOS de EURO a la dirección postal

MEDIANTE ENVIO DE DINERO EFECTIVO a la dirección postal.

DIRECCION POSTAL: ADXB, P.O.BOX 335 , 08080 Barcelona (España) Por favor si no desea recibir mas información de nuestra asociación , conteste a este mail con el Asunto/Subjet : BAJA y le daremos de baja en nuestra mail list. If you did not request this email, please reply to this message and type "remove". - -----=\_NextPart\_84815C5ABAF209EF376268C8

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Asunto/Subjet : B= AJA y le daremos de baja en nuestra mail list= 2EIf you did not request thi= s  
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Do You Yahoo!? Get your  
free @yahoo.com address at <http://mail.yahoo.com>

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Date: Fri, 8 Mar 2002 12:45:38 EST

From: Ka9p@aol.com

Subject: Prem-Rx: 651S1 Parts Does anyone know a reasonably priced source for 651S1 parts? Or  
have the following? For now I need a main tuning knob, a VBFO knob and a manual, probably will need  
source for boards/ newer display as project progresses.....I could also use any links to 651S1 sites if  
such exist, I've already looked thru the CCA archives for info.

Thanks, Scott

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Date: Fri, 8 Mar 2002 19:37:47 +0100

From: "Herbert Bloemen" <bloemen@wxs.nl>

Subject: Prem-Rx: Skanti R5001

- -----= \_NextPart\_000\_0011\_01C1C6D8.B9E03A00

Hi all,

Have been working on this Skanti R5001 for the past few days. Grounding = the frontplate and  
putting the receiver in a decent cabinet cured the = annoying whistle caused by the led read-out  
dimmer and reception is = perfect after changing the (factory standard ?) high impedance input of =  
the pre-selector to 50 ohms. Any other hints about this receiver ?

Regards,

Herbert

- -----= \_NextPart\_000\_0011\_01C1C6D8.B9E03A00

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all,</FONT></DIV> < DIV> &nbsp;</DIV> < DIV> < FONT face= 3DArial size= 3D2> Have  
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to 50 ohms.</FONT></DIV> < DIV> < FONT face= 3DArial size= 3D2> Any other hints about

this = receiver&nbsp;?</FONT></DIV> <DIV> &nbsp;</DIV> <DIV>< FONT face= 3DArial size= 3D2> Regards,</FONT></DIV> <DIV> &nbsp;</DIV> <DIV>< FONT face= 3DArial = size= 3D2> Herbert</FONT> &nbsp;</DIV></BODY></HTML>

- -----= \_NextPart\_000\_0011\_01C1C6D8.B9E03A00--

Date: Sat, 9 Mar 2002 17:32:33 -0000

From: "Tracey Gardner" <tracey.gardner@ntlworld.com>

Subject: Prem-Rx: RA1792 Filter Leakage? I understand that RA1792s have slight leakage around or through the filters which means that very strong signals outside the passband are weakly audible. I notice this especially when using the 100Hz CW filter down in the NDB band, when listening on a particular frequency I can clearly hear an adjacent DGPS signal.

Whereas when I listen on the same frequency using my R71 with its 250Hz CW filter I don't hear the DGPS station.

I wonder if anybody else has experienced this and if there's any mods that can be done to improve the leakage situation?

Cheers

Tracey

Date: Sun, 10 Mar 2002 11:28:32 +0100

From: "John Wilson" <johnwilson@freezone.co.uk>

Subject: RE: Prem-Rx: Re: Receiver Measurements Hi Kurt,

I meant to respond to your posting earlier but wanted to wait until I had a 390A on the bench for myself. I have just reviewed an EAC unit which has been shipped to the UK after being through the hands of a 390A specialist - and it looks and sounds like new. Brilliant restoration but it was the performance I was primarily concerned with. The quick conclusion is that this restored receiver has virtually the same sensitivity as yours, both in SSB (single tone) and AM (1kHz 30%) which of course makes me feel easier about the accepted method (over here) of measuring S/N in AM. The confusion I believe has been brought about by a misinterpretation of the 390A Tech manual instructions for checking sensitivity as a routine field operation. All that the manual wants to see is that the sensitivity is better than the specified 5 microvolts, but as this level is well above the agc threshold, the inherent noise generated closer to the noise floor is well suppressed and doesn't affect the measurement. When measuring the AM sensitivity using the RF + modulation on/off, what we are actually measuring is the m.d.s. of the receiver, i.e. the 3dB S/N ratio and not the true 10dB S/N ratio given by the correct method of leaving the RF signal on and switching the modulation on and off to achieve 10dB S/N. I hope to explain this in some detail in my review article on the 390A, but in the meantime many thanks for taking the trouble to list you results, and I will wait and see what others say..... John

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu]On Behalf Of Kurt Sent: 20 July 2001 00:28 To: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: Re: Receiver Measurements

To the Group Here are some sensitivity measurements that were taken from an R-390A that has been on the bench too long. It is an average receiver in that none of the 390 Specialists have gone through it. The only thing that has been done is that the paper caps have been changed out and replaced with Orange Drops and an alignment. All measurements were made using a HP 8920A RF Test Set. It is interesting to note that when making Signal to Noise Ratio measurements that the modulation is turned

on and off. The same method that John Wilson spoke of some time back. Two things were measured: Sensitivity using a 1 KC CW tone to yield a 10 db SINAD and sensitivity using a 1 KC tone modulated at 30% to yield a 10 db SNR. The reason for choosing a 10 db SINAD instead of 12 db is that I found that the 8920A 10 db SINAD equals a Helper Instruments SINAD Meter 12 db SINAD.

FREQUENCY SINGLE TONE MODULATED TONE 10 db SINAD 10 db SNR 1.5 MC .52 uv 1.22 uv  
2.5 .17 .50 3.5 .20 .62 4.5 .15 .49 5.5 .15 .48 6.5 .17 .54 7.5 .26 .71 8.5 .17 .57 9.5 .13 .50 10.5 .14  
.51 11.5 .15 .51 12.5 .15 .52 13.5 .14 .49 14.5 .16 .56 15.5 .16 .56 16.5 .15 .50 17.5 .14 .49 18.5  
.18 .59 19.5 .15 .52 20.5 .16 .55 21.5 .16 .54 22.5 .15 .54 23.5 .16 .56 24.5 .20 .63 25.5 .16 .59  
26.5 .16 .59 27.5 .16 .60 28.5 .16 .62 29.5 .18 .68 30.5 .19 .73 31.5 .21 .75 General Notes: Stewart  
Warner R-390A sn 167 1960 contract Manual Gain Control BFO on for single tone test 4 KC filter HP  
8920A -Signal Generator - SINAD Meter - SNR Meter

Admitted this does not answer the many questions of how to make the various measurements but it does show the results of using a piece of test gear that was designed to measure receiver performance using SINAD and SNR. Some of the limitations of the 8920A are that SINAD can only be measured using a 1 KC tone and SNR can only be measured using a modulated tone. More fuel for the fire. Kurt Holbrook

-----  
Date: Sun, 10 Mar 2002 07:04:54 -0800

From: Jerry Kincade <w5kp@swbell.net>

Subject: Prem-Rx: Re: Receiver Measurements Because my current employer deals with bits and frames and not RF levels (a shame, I know, but I gotta have income for my toys and these people pay the most money), I don't have access to sophisticated RF test gear. I make do on receiver testing in my home shop with a nice but somewhat mature HP-8656B. Bouncing it against recently calibrated equipment (which it certainly isn't), reveals leveled output within about 1/2 db of correct at all freqs. Being an oldtimer retired Navy tech, I've found over the decades that the military's simple receiver quick-check methods to periodically verify sensitivity are still applicable. Put a signal through the receiver at the high and low ends of each band, and crank it down until the signal disappears in the grass. With all of my decent receivers, this of requires addition of a Weinschel 30 db attenuator, since the sig gen bottoms out at -127 dbm. Write down the levels and the test conditions, keep the paper, and do it again in six months or a year, assuming no noticeable changes in the meantime. Any trends significant enough to worry about will show up like a neon sign when you re-do the checks. This is of course a primitive version of MDS, and becomes somewhat subjective to your ears, or to the output measurement device you are using. But it is infallible where changes in sensitivity that matter (meaning your ears might actually notice the difference) are concerned, as in R-390A tubes starting to go south, a dying preamp or IF strip, etc. Whether the real sensitivity under lab conditions is 0.15 or 0.17 10db SINAD becomes sort of moot when the receiver can put signals into my ears that are still above the noise floor at an antenna input of -145 dbm, which the 590A does. The only requirement is that you START with measurements of a receiver that is working to your satisfaction.

I enjoy the technical posts and never fail to learn something from this list's members. Our S/N ratio on this list is great! Keep up the good work. But for those out there who don't have a clue what their SINAD is and don't have a way to find out, I say don't lose sleep over it. The best receivers will still hear everything that's hearable, and other receivers won't. \*Relative\* trends in sensitivity remain easy to spot with simple checks using reasonably simple and affordable equipment. HP's good (and very expensive when new) stuff of 10-15 years ago is getting cheaper by the day. Go buy some of it and have fun.

Note: Fixing a bad trend when you find it, however, can still be a problem. :-)

73, Jerry W5KP Mustang, Oklahoma

- ----- Original Message -----

From: "John Wilson" <johnwilson@freezone.co.uk> To: "Kurt" <radiouser@uswest.net> Cc: "premium" <premium-rx@kahuna.sdsu.edu> Sent: Sunday, March 10, 2002 2:28 AM  
Subject: RE: Prem-Rx: Re: Receiver Measurements

> Hi Kurt,

> > I meant to respond to your posting earlier but wanted to wait until I had a > 390A on the bench for myself. I have just reviewed an EAC unit which has > been shipped to the UK after being through the hands of a 390A specialist - > and it looks and sounds like new. Brilliant restoration but it was the > performance I was primarily concerned with. The quick conclusion is that > this restored receiver has virtually the same sensitivity as yours, both in > SSB (single tone) and AM (1kHz 30%) which of course makes me feel easier > about the accepted method (over here) of measuring S/N in AM. The confusion > I believe has been brought about by a misinterpretation of the 390A Tech > manual instructions for checking sensitivity as a routine field operation. > All that the manual wants to see is that the sensitivity is better than the > specified 5 microvolts, but as this level is well above the agc threshold, > the inherent noise generated closer to the noise floor is well suppressed > and doesn't affect the measurement. When measuring the AM sensitivity using > the RF + modulation on/off, what we are actually measuring is the m.d.s. of > the receiver, i.e. the 3dB S/N ratio and not the true 10dB S/N ratio given > by the correct method of leaving the RF signal on and switching the > modulation on and off to achieve 10dB S/N. I hope to explain this in some > detail in my review article on the 390A, but in the meantime many thanks for > taking the trouble to list you results, and I will wait and see what others > say..... > John

> > -----Original Message----- >

From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Kurt > Sent: 20 July 2001 00:28 > To: premium-rx@kahuna.sdsu.edu >  
Subject: Prem-Rx: Re: Receiver Measurements

> > > To the Group > Here are some sensitivity measurements that were taken from an R-390A that > has been on the bench too long. It is an average receiver in that none of > the 390 Specialists have gone through it. The only thing that has been done > is that the paper caps have been changed out and replaced with Orange Drops > and an alignment. All measurements were made using a HP 8920A RF Test Set. > It is interesting to note that when making Signal to Noise Ratio > measurements that the modulation is turned on and off. The same method that > John Wilson spoke of some time back. Two things were measured: Sensitivity > using a 1 KC CW tone to yield a 10 db SINAD and sensitivity using a 1 KC > tone modulated at 30% to yield a 10 db SNR. The reason for choosing a 10 db > SINAD instead of 12 db is that I found that the 8920A 10 db SINAD equals a > Helper Instruments SINAD Meter 12 db SINAD.

> > FREQUENCY SINGLE TONE MODULATED TONE > 10 db SINAD 10 db SNR > 1.5 MC .52 uv 1.22 uv > 2.5 .17 > .50 > 3.5 .20 > .62 > 4.5 .15

\*\*\* SNIP \*\*\*

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End of premium-rx-digest V1 #179 \*\*\*\*\*  
Subject: premium-rx-digest V1 #180  
premium-rx-digest Sunday, March 17 2002 Volume 01 : Number 180  
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----- Date: Sun, 10 Mar 2002 15:03:58 +0100  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: Re: Receiver Measurements Absolutely!! I have just restored a TransOceanic G-500 and it's a pleasure to listen to the AM short wave bands with the good bandsread and the



"tube" sound. I've compared it with my own "as-new" Zenith Royal 1000D and they both prove that you don't have to use a premium grade receiver to do some serious listening (on AM). I won't even try to establish the S/N ratio of the Zeniths, 'cos it doesn't matter. Just enjoy. Sorry if this is slightly off-list, but as the Commander used to say - Zenith is the Royalty of Radio. John

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Jerry Kincade Sent: 10 March 2002 16:05 To: premium  
Subject: Prem-Rx: Re: Receiver Measurements

Because my current employer deals with bits and frames and not RF levels (a shame, I know, but I gotta have income for my toys and these people pay the most money), I don't have access to sophisticated RF test gear. I make do on receiver testing in my home shop with a nice but somewhat mature HP-8656B. Bouncing it against recently calibrated equipment (which it certainly isn't), reveals leveled output within about 1/2 db of correct at all freqs. Being an oldtimer retired Navy tech, I've found over the decades that the military's simple receiver quick-check methods to periodically verify sensitivity are still applicable. Put a signal through the receiver at the high and low ends of each band, and crank it down until the signal disappears in the grass. With all of my decent receivers, this of requires addition of a Weinschel 30 db attenuator, since the sig gen bottoms out at -127 dbm. Write down the levels and the test conditions, keep the paper, and do it again in six months or a year, assuming no noticeable changes in the meantime. Any trends significant enough to worry about will show up like a neon sign when you re-do the checks. This is of course a primitive version of MDS, and becomes somewhat subjective to your ears, or to the output measurement device you are using. But it is infallible where changes in sensitivity that matter (meaning your ears might actually notice the difference) are concerned, as in R-390A tubes starting to go south, a dying preamp or IF strip, etc. Whether the real sensitivity under lab conditions is 0.15 or 0.17 10db SINAD becomes sort of moot when the receiver can put signals into my ears that are still above the noise floor at an antenna input of -145 dbm, which the 590A does. The only requirement is that you START with measurements of a receiver that is working to your satisfaction.

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From: "John Wilson" <johnwilson@freezone.co.uk> To: "Kurt" <radiouser@uswest.net> Cc: "premium" <premium-rx@kahuna.sdsu.edu> Sent: Sunday, March 10, 2002 2:28 AM  
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From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Kurt > Sent: 20 July 2001 00:28 > To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Re: Receiver Measurements

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\*\*\* SNIP \*\*\*

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Date: Sun, 10 Mar 2002 21:36:16 -0500

From: michael j brown <piggin@mindspring.com>

Subject: Prem-Rx: off topic..R-8500 I am interested in hearing from other 8500 drivers out there, especially those who go below 30mhz with them.I have found mine to nuke everything else I use...Including my 3031A mackays.I would also like to hear from any Icom 9000 owners who have used 8500s.Thanks. Also...anybody have any U431 JFETs?

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Date: Sun, 10 Mar 2002 23:08:31 -0600

From: "Bob Parnass, AJ9S" <parnass@megsinet.net>

Subject: Re: Prem-Rx: off topic..R-8500 Mike,

I have an IC-R8500 and a Mackay Marine 3031A, but use the IC-R8500 more frequently.

Consider joining these two Yahoo mailing lists devoted to the ICOM IC-R8500 receiver:

ICOM-R8500 and IC-R8500

See <http://groups.yahoo.com> for info on joining both.

Check out my web page for tk8500, open source, multi-platform software I wrote for the IC-R8500:

<http://members.core.com/~parnass>

On Sunday 10 March 2002 08:36 pm, michael j brown wrote: > I am interested in hearing from other 8500 drivers out there, especially ... - --

=====  
===== Bob Parnass, AJ9S [parnass@megsinet.net](mailto:parnass@megsinet.net)  
=====  
<http://members.core.com/~parnass> Linux user

-----  
Date: Mon, 11 Mar 2002 08:45:35 -0500  
From: "Carcia, Frank A. HS" <[francis.carcia@hs.utc.com](mailto:francis.carcia@hs.utc.com)>  
Subject: RE: Prem-Rx: RA1792 Filter Leakage? Hi All, I noticed the same leakage in the RA6830. Racal used a resistive power splitter driving the inputs of all the filters installed in the radio. Only the outputs of the filters are diode switched. The RA6830 has a 3 filter module that switches both sides of the filters. I measured about 80 db of ultimate rejection with that module. The standard configuration is only in the mid 60s. There is limited board space in the RA6830 so I solved the problem in a different way. I picked up 2 standard filter modules with mechanical filters installed. The mechanical filters are much shorter than the crystal units but have the same performance. I then stacked the two modules with 1 inch threaded spacers and built a harness between the connectors to provide control and power to the second module. I built a small board with a MWA120 amplifier to recover the signal attenuation of the second set of filters. Bottom line, the performance is worth the trouble. A larger radio like the RA1792 or RA6790 would be easy to modify with a PC board mounted in the back near the power supply. Also I bet crystal filters would fit. fc

- ----Original Message-----

From: Tracey Gardner [<mailto:tracey.gardner@ntlworld.com>] Sent: Saturday, March 09, 2002 12:33 PM  
To: PREMIUM-RX@kahuna.sdsu.edu  
Subject: Prem-Rx: RA1792 Filter Leakage?

I understand that RA1792s have slight leakage around or through the filters which means that very strong signals outside the passband are weakly audible. I notice this especially when using the 100Hz CW filter down in the NDB band, when listening on a particular frequency I can clearly hear an adjacent DGPS signal.

Whereas when I listen on the same frequency using my R71 with its 250Hz CW filter I don't hear the DGPS station.

I wonder if anybody else has experienced this and if there's any mods that can be done to improve the leakage situation?

Cheers

Tracey

-----  
Date: Tue, 12 Mar 2002 08:32:32 -0500  
From: "Carcia, Frank A. HS" <[francis.carcia@hs.utc.com](mailto:francis.carcia@hs.utc.com)>  
Subject: Prem-Rx: FW: wireless AI did a good job of showing us simple people how stuff worked.

\*\*\*\*\* "The wireless telegraph is not difficult to understand. The ordinary telegraph is like a very long cat. You pull the tail in New York, and it meows in Los Angeles. The wireless is the same, only without the cat." - Albert Einstein  
\*\*\*\*\*

Date: Fri, 15 Mar 2002 15:56:48 -0800  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: NRD535 Synch Fix Hi everybody,

If anyone 's got an NRD535 with a problem of loss of lock on the Sych (ECSS), I think I found an easy way to fix it. Please contact me and let you know how to fix it within minutes ( seems to work in mine ). Ahmet / kc2haa@arrl.net

-----  
Date: Fri, 15 Mar 2002 16:29:11 -0600  
From: w5ntq <w5ntq@pdq.net>  
Subject: Prem-Rx: Squires-Sanders SS-1R Just got a SS-1R. Would like to hear from some of the other happy or unhappy owners of this receiver.

Paul W5NTQ

-----  
Date: Fri, 15 Mar 2002 17:45:18 -0600  
From: "Bob Parnass, AJ9S" <parnass@megsinet.net>  
Subject: Re: Prem-Rx: Squires-Sanders SS-1R At one time, I had the Squire-Sanders SS-1BS, which is the SWL version of the SS-1R.

It was an interesting radio, but had IF feedthrough problems.

Like other older radios, one had to "ride" the RF gain control during SSB reception.

On Friday 15 March 2002 04:29 pm, w5ntq wrote: > Just got a SS-1R. Would like to hear from some of the other happy or unhappy > owners of this receiver. > Paul W5NTQ

- - -

=====  
===== Bob Parnass, AJ9S parnass@megsinet.net  
http://members.core.com/~ parnass Linux user

-----  
Date: Fri, 15 Mar 2002 19:38:16 EST  
From: Ka9p@aol.com  
Subject: Re: Prem-Rx: Squires-Sanders SS-1R Paul -

I've got an SS-IBS here, and it is truly a love/hate relationship.

It has a 1 mhz IF, no RF stage, and I live about 1.5 miles due south of a 50 kw station on 1 MHZ. I've managed to beat (no pun intended) most of the heterodyne out of the IF, but it's been a struggle. To get there I needed a selective preamp, a 2 Mhz high pass filter, and some extra chassis shielding. Most guys around Chicago I've talked to that have owned an SS anything experienced similar problems. I've hauled it away a few times to listen and enjoyed it, tho.

Aside from that, I think the product detector is excellent, and it makes a great AM receiver, esp at 8 kc if the adjacent channels are clear. (as I recall the R is a little different than the IBS - this has appx 8, 5 and 2.5 khz selectivity). Typical Squires Sanders quality build, and the mechanical digital readout is pretty good but not outstanding - I think it was off about 5 kc from one end of the band to another the last time I looked, but it should be better.

The radio is terribly sensitive to having a 50 ohm antenna - if it doesn't, it seems deaf as a stone - but perks up well when properly aligned and connected to a 50 ohm load.

Enjoy the beast.

Regards, Scott

-----  
Date: Fri, 15 Mar 2002 22:31:30 -0700  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: Prem-Rx: Smoooooth Tuning Hello to the Group:

Here is a little tip I have tried: For silky smooth tuning on the Racal 1792,6790/GM and 6793A, use a little fine graphite on the encoder shaft. After taking off the front panel and removing the shaft, I used a bit of isopropyl alcohol to clean the shaft, and then applied a small (really small) amount of graphite. The result was wonderfully smooth (yow!) tuning.

Shaun

- -- smerriga@compusmart.ab.ca

-----  
Date: Sat, 16 Mar 2002 22:51:28 -0900  
From: "Mike Taylor" <mvtaylor@acsalaska.net>  
Subject: Prem-Rx: FS: I com 9000 I com 9000 in I com box with all Sherwood Engineering filter and cooling mods. This also includes a Sherwood Synch Detector. Best offer over \$3000.

Mike Taylor

-----  
Date: Sat, 16 Mar 2002 22:53:11 -0900  
From: "Mike Taylor" <mvtaylor@acsalaska.net>  
Subject: Prem-Rx: FS: Plessey 2280

- -----=\_NextPart\_000\_003E\_01C1CD3D.58E13D60

In very good condition complete with manual's. Best offer over \$1500.

- -----=\_NextPart\_000\_003E\_01C1CD3D.58E13D60

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content= 3D"MSHTML 6.00.2713.1100" name= 3DGENERATOR> <STYLE> </STYLE>
</HEAD> <BODY bgColor= 3D#ffffff> <DIV> <FONT face= 3DArial size= 3D2> <FONT
face= 3D"Times New Roman" = size= 3D3> In very good condition complete with
manual's.<BR> Best offer over $1500.</FONT><BR></FONT></DIV></BODY></HTML>
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Date: Sun, 17 Mar 2002 08:02:29 -0800  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member- Peter A Schroeter

- -----=\_NextPart\_000\_018C\_01C1CD8A.15CB23E0

Gentlemen:

Adam McDonald, presently a member of our List, recommended Pete join our = group. Thus, after checking the archives of our past posts, Pete = decided to drop me a line. We are glad to have him join.

Our newest engineer is an RF design engineer by trade, who openly admits = a love affair with radio receivers for as long as he can remember. His = first receiver, was a one-tube battery operated regenerative design, = built when he was only seven years old. He says the thrill of hearing = music through the headphones of this contraption is what hooked him on = electronics, and receivers in general.

Since that day he has become refined in his taste of receivers, = presently owning a couple of Watkins Johnson receivers: WJ-8615D VHF/UHF (with all options) and a WJ-8712A HF receiver.

Welcome to the List, Pete-

To contact our newest member: [ka5fun@juno.com](mailto:ka5fun@juno.com)

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content= 3D"MSHTML 5.50.4134.600" name= 3DGENERATOR> <STYLE></STYLE>
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- -----=\_NextPart\_000\_018C\_01C1CD8A.15CB23E0--

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End of premium-rx-digest V1 #180 \*\*\*\*\*  
Subject: premium-rx-digest V1 #181  
premium-rx-digest Monday, March 25 2002 Volume 01 : Number 181  
-----

----- Date: Mon, 18 Mar 2002 08:01:28 -0500  
From: "Carcia, Frank A. HS" <[francis.carcia@hs.utc.com](mailto:francis.carcia@hs.utc.com)>  
Subject: RE: Prem-Rx: Smoooooth Tuning I also remove the spring loaded washer that loads up the shaft.

- -----Original Message-----

From: Shaun Merrigan [<mailto:smerriga@compusmart.ab.ca>] Sent: Saturday, March 16, 2002 12:32 AM  
To: Premium Rx List Posting  
Subject: Prem-Rx: Smoooooth Tuning

Hello to the Group:

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Shaun

- -- smerriga@compusmart.ab.ca

-----  
Date: Tue, 19 Mar 2002 16:02:13 -0800  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: Harris RF590 & RF590A Hello everybody,

Does anybody have a Harris RF590 or RF590A that they would like to sell. Must be in perfect working condition only with no faults in software etc. Please can you let me know urgently. This is for a friend of mine who will donate it to an amateur radio club overseas, so the unit must be in good working condition as they do not have a chance to return it or repair it locally. Thank you. You can email me at: kc2haa@arrl.net

-----  
Date: Thu, 21 Mar 2002 22:25:15 -0800  
From: Peter A Schroeter <ka5fun@juno.com>  
Subject: Re: Prem-Rx: WJ-8712A Firmware This message is in MIME format. Since your mail reader does not understand

- ---- \_\_JNP\_000\_5a7c.680b.323c charset= us-ascii

Hi everyone!

I recently purchased a used WJ-8712A (just the PC boards, PSU and manual) and finally got it to work! It seems to function perfectly. Regrettably it has rather old firmware: Version 04.01.00, dated 1/9/94. This older firmware doesn't include many features (synchronous AM, 16KHz BW option, enhanced AGC, etc.) and therefore limits the receiver's potential. I am looking for Version 04.01.03, apparently the highest version that will work on my older DSP board, and that includes most of the enhancements. I can purchase it from BAE, but they want \$130 for the privilege! Does anyone know where I might find these EPROMS at a more reasonable price?

Thanks,

Pete - ---- \_\_JNP\_000\_5a7c.680b.323c charset= us-ascii

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<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML> <HEAD>
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<DIV> Pete</DIV> </DIV> </BODY> </HTML>
```

- ---- \_\_JNP\_000\_5a7c.680b.323c--

-----  
Date: Fri, 22 Mar 2002 01:34:15 EST  
From: Aidehua@aol.com  
Subject: Prem-Rx: WJ HF-1000 firmware question Will the latest 8711 firmware work in the HF-1000A???

Thanks, Ed NI6S

-----  
Date: Sun, 24 Mar 2002 10:58:21 -0800  
From: "Steve Burney" <burneysm@earthlink.net>  
Subject: RE: Prem-Rx: WJ-8712A Firmware

- -----= \_NextPart\_000\_0014\_01C1D322.D12646E0

If you find this, I too would be interested. BTW, who did you speak to at BAE? I talked to them about it and was told that they did not have older revisions available for sale.

Regards, Steve

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu]  
On Behalf Of Peter A Schroeter Sent: Thursday, March 21, 2002 10:25 PM To: Premium-Rx@kahuna.sdsu.edu

Subject: Re: Prem-Rx: WJ-8712A Firmware Hi everyone!

I recently purchased a used WJ-8712A (just the PC boards, PSU and manual) and finally got it to work! It seems to function perfectly. Regrettably it has rather old firmware: Version 04.01.00, dated 1/9/94. This older firmware doesn't include many features (synchronous AM, 16KHz BW option, enhanced AGC, etc.) and therefore limits the receiver's potential. I am looking for Version 04.01.03, apparently the highest version that will work on my older DSP board, and that includes most of the enhancements. I can purchase it from BAE, but they want \$130 for the privilege! Does anyone know where I might find these EPROMS at a more reasonable price?

Thanks,

Pete

- -----= \_NextPart\_000\_0014\_01C1D322.D12646E0

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <html
xmlns:o= 3D"urn:schemas-microsoft-com:office:office" = xmlns:w= 3D"urn:schemas-microsoft-
com:office:word" = xmlns= 3D"http://www.w3.org/TR/REC-html40">
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content= 3D"Microsoft Word 10"> <meta name= 3DOriginator content= 3D"Microsoft Word 10">
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9]> <xml> <o:OfficeDocumentSettings> <o:DoNotRelyOnCSS/> </o:OfficeDocumentSettings>
</xml> <![endif]--> <!--[if gte mso 9]> <xml> <w:WordDocument>
<w:SpellingState> Clean</w:SpellingState> <w:GrammarState> Clean</w:GrammarState>
<w:DocumentKind> DocumentEmail</w:DocumentKind> <w:EnvelopeVis/>
<w:BrowserLevel> MicrosoftInternetExplorer4</w:BrowserLevel> </w:WordDocument>
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1:2 11 6 4 3 5 4 4 2 4; mso-font-charset:0; mso-generic-font-family:swiss; mso-font-pitch:variable;
mso-font-signature:553679495 -2147483648 8 0 66047 0;} /* Style Definitions */ p.MsoNormal,
li.MsoNormal, div.MsoNormal {mso-style-parent:""; margin:0in; margin-bottom:.0001pt; mso-
pagination:widow-orphan; font-size:12.0pt; font-family:"Times New Roman"; mso-fareast-font-
family:"Times New Roman";} a:link, span.MsoHyperlink {color:blue; text-decoration:underline; text-
underline:single;} a:visited, span.MsoHyperlinkFollowed {color:purple; text-decoration:underline;
text-underline:single;} span.EmailStyle17 {mso-style-type:personal-reply; mso-style-noshow:yes;
mso-ansi-font-size:10.0pt; mso-bidi-font-size:10.0pt; font-family:Arial; mso-ascii-font-family:Arial;
mso-hansi-font-family:Arial; mso-bidi-font-family:Arial; color:navy;} @page Section1 {size:8.5in
11.0in; margin:1.0in 1.25in 1.0in 1.25in; mso-header-margin:.5in; mso-footer-margin:.5in; mso-
paper-source:0;} div.Section1 {page:Section1;} - --> </style> <!--[if gte mso 10]> <style> /*
Style Definitions */ table.MsoNormalTable {mso-style-name:"Table Normal"; mso-tstyle-rowband-
size:0; mso-tstyle-colband-size:0; mso-style-noshow:yes; mso-style-parent:""; mso-padding-alt:0in
5.4pt 0in 5.4pt; mso-para-margin:0in; mso-para-margin-bottom:.0001pt; mso-pagination:widow-
orphan; font-size:10.0pt; font-family:"Times New Roman";} </style> <![endif--> </head>

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< div class= 3DSection1>

< p class= 3DMsoNormal> < font size= 3D2 color= 3Dnavy face= 3DArial> < span = style= 3D'font-
size: 10.0pt;font-family:Arial;color:navy'> If you find this, I too would be
interested.< o:p> </o:p> </span> </font> </p>

< p class= 3DMsoNormal> < font size= 3D2 color= 3Dnavy face= 3DArial> < span = style= 3D'font-
size: 10.0pt;font-family:Arial;color:navy'> BTW, who did you speak to at BAE? I = talked to them
about it and was told that they did not have older revisions = available for
sale.< o:p> </o:p> </span> </font> </p>

< p class= 3DMsoNormal> < font size= 3D2 color= 3Dnavy face= 3DArial> < span = style= 3D'font-
size: 10.0pt;font-family:Arial;color:navy'> < o:p> &nbsp;</o:p> </span> </font> </p>

< p class= 3DMsoNormal> < font size= 3D2 color= 3Dnavy face= 3DArial> < span = style= 3D'font-
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size: 10.0pt;font-family:Arial;color:navy'> Steve< o:p> </o:p> </span> </font> </p>

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size: 10.0pt;font-family:Arial;color:navy'> < o:p> &nbsp;</o:p> </span> </font> </p>

< p class= 3DMsoNormal style= 3D'margin-left:.5in'> < font size= 3D2 = face= 3DTahoma> < span
style= 3D'font-size:10.0pt;font-family:Tahoma'> -----Original = Message-----< br> < b> < span
style= 3D'font-weight:bold'>

From:</span> </b> owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-
rx@engineering.sdsu.edu] < b> < span = style= 3D'font-weight: bold'> On Behalf Of
</span> </b> Peter A Schroeter< br> < b> < span style= 3D'font-
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style= 3D'font-weight:bold'> To:</span> </b> = Premium-Rx@kahuna.sdsu.edu< br> < b> < span
style= 3D'font-weight:bold'>

Subject:</span> </b> Re: Prem-Rx: = WJ-8712A Firmware</span> </font> </p>

< p class= 3DMsoNormal style= 3D'margin-left:.5in'> < font size= 3D3 = face= 3D"Times New
Roman"> < span style= 3D'font-size:12.0pt'> < o:p> &nbsp;</o:p> </span> </font> </p>

< div>

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< p class= 3DMsoNormal style= 3D'margin-left:.5in'> < font size= 3D3 = face= 3D"Times New Roman"> < span style= 3D'font-size:12.0pt'> Hi everyone!< o:p> </o:p> </span> </font> </p>

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< p class= 3DMsoNormal style= 3D'margin-left:.5in'> < font size= 3D3 = face= 3D"Times New Roman"> < span style= 3D'font-size:12.0pt'> &nbsp;< o:p> </o:p> </span> </font> </p>

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< p class= 3DMsoNormal style= 3D'margin-left:.5in'> < font size= 3D3 = face= 3D"Times New
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< p class= 3DMsoNormal style= 3D'margin-left:.5in'> < font size= 3D3 = face= 3D"Times New
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</div>
< div>
< p class= 3DMsoNormal style= 3D'margin-left:.5in'> < font size= 3D3 = face= 3D"Times New
Roman"> < span style= 3D'font-size:12.0pt'> Pete< o:p> </o:p> </span> </font> </p>
</div>
</div>
</div>
</div>
</body>
</html>
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- -----= \_NextPart\_000\_0014\_01C1D322.D12646E0--

Date: Sun, 24 Mar 2002 18:38:22 -0800  
From: "refmon" <monitor@referencevideo.com>  
Subject: Prem-Rx: interesting reference material Hi premium-rx group,

I stumbled on the following two Harris url's that seem to be at least tangentially on subject in a psuedo-simulated way, so I figured I'd pass them along...if it's old news, forgive my "new discovery" of it.

First is HF radio communications in the digital age at [www.rfcomm.harris.com/support/pdf/hfradio.pdf](http://www.rfcomm.harris.com/support/pdf/hfradio.pdf)

Second relates to VHF & UHF and satellite stuff too and is at [www.rfcomm.harris.com/support/pdf/vhf-uhf-2000.pdf](http://www.rfcomm.harris.com/support/pdf/vhf-uhf-2000.pdf)

Both appear to be good reads assuming they address your personal interests.

regards to all

John Collins \_\_\_\_\_

Date: Mon, 25 Mar 2002 11:21:47 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: RA6830 BFO Distortion Hi All, I found a BFO problem on a receiver that was easy to fix. The RA6830 BFO is diode switched to the FM detector LM1357 on the A7 module. The IF signal shares this input for AM and FM demodulation. I found distortion at TP3 into the MC1496, when in SSB and CW modes. I also found the BFO signal level was lower than the IF signal. I suspect the LM1357 was unable to properly lock to the lower BFO level. The LM1357 provides the injection

for the MC1496 mixer for AM, CW and SSB modes of demodulation. The MC1357 is the FM demodulator which locks to the IF or BFO. There is a resistive divider off the PLL BFO source so I just changed the value to drive the MC1357 a little harder. I changed R18 from 10 K to 3.3 K and everything looks clean now and the levels are similar. fc

-----  
End of premium-rx-digest V1 #181 \*\*\*\*\*  
Subject: premium-rx-digest V1 #182  
premium-rx-digest Monday, April 1 2002 Volume 01 : Number 182  
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----- Date: Mon, 25 Mar 2002 11:46:39 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: CQ Brian Cormer Brian the new email address you gave me doesn't work. Please contact me. TNX, fc

-----  
Date: Tue, 26 Mar 2002 19:41:19 +0100  
From: "R. Koopmans" <royk7@concepts.nl>  
Subject: Prem-Rx: sailor S.P.Radio R1120

- -----=\_NextPart\_000\_000B\_01C1D4FE.33C7D340

Hello there radio enthusiasts,

I got my hands on a Danish maritime radioset, including a 0-30Mhz SSB = receiver, the R1120 (part of the famous green colored Tx/Rx set). The receiver works fine; almost as good as my Skanti R5001, but I have = one small problem with the AGC of the R1120. When the AGC is switched on and a strong SSB signal comes in, the AGC = controls the volume just fine, until this strong signal stops transmitting. Then the = AGC's decay time is too long, about 3 to 4 seconds. So if a strong signal stops transmitting = I miss about 4 seconds of signal of the weaker counter station. Is there anyone amongst you that knows this receiver and knows how to = manipulate the settings of the AGC inside this receiver; or even better: does anyone have a = schematic diagram of the R1120. I would really appreciate help on this matter; the receiver is almost = perfect, just this thing with the AGC makes listening to SSB stations very tiring.

Hope to hear from someone.

Greetings from Holland.

Roy -

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- -----=\_NextPart\_000\_000B\_01C1D4FE.33C7D340

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content= 3D"MSHTML 5.50.4807.2300" name= 3DGENERATOR> <STYLE></STYLE>  
</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT size= 3D2>Hello there radio  
enthusiastics,</FONT></DIV> <DIV><FONT size= 3D2></FONT> &nbsp; </DIV>
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< DIV> < FONT size= 3D2> Roy</FONT></DIV> < DIV> < FONT size= 3D2>

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-----</FONT></DIV></BODY></HTML>  
-----=\_NextPart\_000\_000B\_01C1D4FE.33C7D340--

Date: Tue, 26 Mar 2002 12:45:34 -0800  
From: "Paul Wende" <pwende@arrow.com>  
Subject: Prem-Rx: RACAL 6793 help needed please Hi group,

I have just acquired a nice 6793 which has a strange problem. The radio seems to work fine except when you go to SCAN or SWEEP, it makes a funny digital noise, the displays flash randomly and the FAULT light comes on. It passes BITE no problem so I don't know which board to start troubleshooting. After this occurs, you need to manually enter the freq., change the mode and press a few other buttons and it seems to go back to working fine, except of course, until you press the SCAN button again. I would really like to get this repaired so I can bolt her into the rack.

PS the battery was shorted, I removed, zapped it and now it holds a charge but I am still going to replace it. Also, I read somewhere that pressing the ENTER key while turning on the power, starts a reset function. Anyone confirm this? What does it do?

Thanks all,  
Paul VE7KHz

-----  
Date: Tue, 26 Mar 2002 20:11:24 -0800  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member- Steve Corey (DSR-2)

- -----=\_NextPart\_000\_00F5\_01C1D502.673286E0

Gentlemen:

Steve Corey joins our List. Steve is a citizen of Austin, MN and = happened across our List "whilst" looking for material for his Racal = 1792. He was licensed as KB0MEX in 1994, but confesses that his main = interest is AM Broadcast and SWL.

His first receiver was a AM portable radio given to him when a teenager = by his parents. Since then, and a whole bunch of radios later, Steve = operates a Racal 1792 and a Drake DSR-2.

You can contact Steve at: [sdcorey1@charter.net](mailto:sdcorey1@charter.net)

Greg

P.S. Notice the a new alias has been established for the university's = server known as "Kahuna". It can now be addressed as = \_\_\_\_\_@Engineering.SDSU.Edu

- -----=\_NextPart\_000\_00F5\_01C1D502.673286E0

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML><HEAD>
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content= 3D"MSHTML 5.50.4134.600" name= 3DGENERATOR> <STYLE></STYLE>
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size= 3D2></FONT> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> You can contact
Steve at:&nbsp; < A title= 3Dsdcorey1@charter.net
href= 3D"mailto:sdcorey1@charter.net"> sdcorey1@charter.net</A> = </FONT></DIV>
<DIV><FONT face= 3DArial size= 3D2></FONT> &nbsp;</DIV> <DIV> <DIV><FONT
face= 3DArial size= 3D2> Greg</FONT></DIV> <DIV><FONT face= 3DArial
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href= 3D"mailto:_____@Engineering.SDSU.Edu"> _____@Engineering.SDSU.Edu</A> </=
FONT></DIV></DIV></BODY></HTML>
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- -----=\_NextPart\_000\_00F5\_01C1D502.673286E0--

Date: Wed, 27 Mar 2002 13:20:38 -0800  
From: "Paul Wende" <[pwende@arrow.com](mailto:pwende@arrow.com)>  
Subject: Prem-Rx: Further Racal 67XX help needed Hi Group,

Well I fixed the BITE problem with the 6793 last night. There was however, a bizarre problem which I am happy to report, I also fixed. The BITE test wouldn't even finish. It would report 2 codes and then stop. I traced it down to a cold solder joint on the LSB Collins filter. As it is the first filter, the BITE saw it as missing and stopped. Also there was a combo of bad battery and bad stored channel data. Whenever it encountered a channel with scrambled data, the fault light came on. So, I now would like to ask, as I don't have the manual for this rig, how do you do a bulk erase of all the channel data. i.e. where is the ctrl+ alt+ del button.

Problem 2, strong signal audio clipping distortion on AM. On strong local AM stations, there is some clipping occurring on the audio peaks. Same on strong SW. I haven't gone through it stage by stage yet, but would appreciate hearing if this is a known fault and is there a remedy. Common part failure? My 6790 has no problem with very strong sigs. Seems to be worse on the 3.4 and 7.2 kHz filters, although it could just be more obvious on these ones, as there is some masking with the 16khz high freq. noise.

Look forward to getting the lid bolted on and get this radio into it's permanent home..... and then on the new Cubic 3080 which just arrived. :-)

Cheers!

Paul

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Date: Wed, 27 Mar 2002 17:58:08 -0800  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: RF590A Hello.

Anyone interested in selling their Harris RF590A ?

Thx. A.G. Email: kc2haa@arrl.net

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Date: Thu, 28 Mar 2002 23:59:25 -0800  
From: "Spencer Bahner" <spencer12345@email.msn.com>  
Subject: Prem-Rx: SciComm receiver experts Howdy!

Are there any experts out there who have worked on the SciComm (also known as Andrews or California Microwave) 7220 receivers or similar SciComm products? Or if you know anyone who used to work for the in Dallas....

If so, pls drop me a line as I have a Cal Microwave 7220 that is oh so close to working but goes into logic never-never-land after initial power up.

Also, if there are any high-end receiver owners in the Seattle area who might want to meet and compare notes, pls let me know.

Thanks in advance for any help!

Spencer Bahner N7UMO Seattle 425-407-3925 spencer12345@msn.com

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Date: Fri, 29 Mar 2002 18:56:17 +0100  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: JRC NRD-72

- -----=\_NextPart\_000\_0007\_01C1D753.684E3DA0

Hi

Anybody out there that has the adjustment procedure for AGC board ?

The instruction manual doesn't give enough info for this, and I think my = receiver needs the board to be adjusted.

Regards,

Herbert

- -----=\_NextPart\_000\_0007\_01C1D753.684E3DA0

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML><HEAD>  
<META content= 3D"text/html; charset= 3Diso-8859-1" = http-equiv= 3DContent-Type> <META  
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size= 3D2> Herbert</FONT> </DIV> <DIV> &nbsp;</DIV> </BODY> </HTML>

- -----=\_NextPart\_000\_0007\_01C1D753.684E3DA0--

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Date: Sat, 30 Mar 2002 09:39:05 +0100  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: RE: Prem-Rx: JRC NRD-72

Oh Boy!

If the NRD-72 AGC setup is anything like the NRD-505 it's a real pig - and I use the word seriously. I've never encountered so many interlocking preset adjustments, and getting it right was more by luck than careful adjustment. The service manual was not much help, but I hope that the NRD-72 may be better. If all attempts fail I do still have contact with JRC (I was the UK distributor) and could try to get some information. Let me know. John

-----  
Date: Sat, 30 Mar 2002 14:42:07 EST  
From: Ka9p@aol.com  
Subject: Prem-Rx: 651S1 Rerun :) Thanks for the input a few weeks ago re the 651S1. I got a very generous offer from a gentleman on the list offering to let me borrow his manual from overseas to copy, but that's so far beyond the call of duty I just couldn't indulge - it does reflect the quality of guys on this list, for sure.

I've got the ugly thing, and surprisingly, everything is lit and running well now, but still looking for some info and a few parts or sources and would appreciate hints on the following.....

Will it mute, and how?

Still looking for manual copy, partial or otherwise, especially need block diagram and general theory of design, and schematic of power connector/fuse area - this has been rewired and needs to be fixed.

Need a variable BFO knob (which is the same as most of the others) main tuning knob, cabinet feet, and some of the plastic tabs for the switches - not looking for mint stuff - slightly worn stuff is fine. And of course will consider a parts radio.....

Could use a clue for matches for panel touch up paint, bezel paint, and cabinet paint, and finally...

Is there anybody out there that is a repository for history, service or knowledge on these things - I'm particularly interested in how the DOD R1828 (V) 5U came configured - and whether there is any gov't site with schematics or info. A pretty exhaustive internet search turned up instructions for changing meter bulbs, a list of SB's and a few pix, and that was it - there must be more 651S1 junkies out there :)



Thanks, Scott

-----  
Date: Mon, 01 Apr 2002 18:59:23 -0800  
From: Martin Colby <mcolby@cts.com>  
Subject: Prem-Rx: Racal 6790 Connector Source Hi All:

Though I'm sure it's been covered a few times, I missed it.

Can anyone recommend a source for the oddball computer connector for my Racal 6790/GM?  
(reasonable prices most appreciated)

Thanks,

Martin Colby  
mcolby@cts.com  
San Diego, CA

-----  
End of premium-rx-digest V1 #182 \*\*\*\*\*  
Subject: premium-rx-digest V1 #183  
premium-rx-digest Friday, April 12 2002 Volume 01 : Number 183  
-----

----- Date: Mon, 1 Apr 2002 20:16:21 -0700  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: RE: Prem-Rx: Racal 6790 Connector Source Martin,

Sure can:

I purchased several from William Perry <http://www.williamperrycompany.com/>

MS3116E16-26S is (the shell with the solder cup contacts) the connector you want. Last summer, the price for a used connector was \$15.00, and a new one was \$33.00.

Family owned business and wonderful to deal with.

73's

Shaun

- - - smerriga@compusmart.ab.ca

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Martin Colby Sent: April 1, 2002 19:59 To: Premium RX  
Subject: Prem-Rx: Racal 6790 Connector Source

Hi All:

Though I'm sure it's been covered a few times, I missed it.

Can anyone recommend a source for the oddball computer connector for my Racal 6790/GM?  
(reasonable prices most appreciated)

Thanks,

Martin Colby

mcolby@cts.com

San Diego, CA

-----  
Date: Mon, 01 Apr 2002 22:38:43 -0800

From: Jerry Kincade <w5kp@swbell.net>

Subject: Re: Prem-Rx: Racal 6790 Connector Source Martin, are you talking about the DB-25 "serial port" connector? If so, I got mine at Radio Shack for about a dollar or so. A pain to solder, but it works fine. 73, Jerry W5KP

- ----- Original Message -----

From: "Martin Colby" <mcolby@cts.com> To: "Premium RX" <Premium-RX@kahuna.sdsu.edu>

Sent: Monday, April 01, 2002 6:59 PM

Subject: Prem-Rx: Racal 6790 Connector Source

> Hi All:

> > Though I'm sure it's been covered a few times, I missed it.

> > Can anyone recommend a source for the oddball computer connector for my > Racal 6790/GM?  
> (reasonable prices most appreciated)

> > Thanks,

> > Martin Colby

> > mcolby@cts.com

> > San Diego, CA

> >

-----  
Date: Tue, 2 Apr 2002 00:36:25 -0600

From: "Dr. William J. Schmidt, II" <bill@wjschmidt.com>

Subject: Prem-Rx: Fw: {Collins} RACAL EQUIPAMENT Sincerely,

Dr. William J. Schmidt, II

"Collector of Edison Wind-up Phonographs... Do you have one for me?" Email: bill@wjschmidt.com

WebPage: www.wjschmidt.com

- ----- Original Message -----

From: "Claudio M. Santos" <py4vb@ig.com.br> To: <COLLINS@LISTSERVE.COM> Sent: Friday, December 14, 2001 2:23 PM

Subject: {Collins} RACAL EQUIPAMENT

> > Do anyone know about RACAL radio equipment, made by BCC (British > Communications Corp). I bought a BCC 34, covering 0-30 Mhz, 25 watts > output.any help will be welcome > Thanks  
> Claudio > py4vb@ig.com.br

> > > Sponsored by the Collins Collectors Association <http://www.collinsradio.org> > Nets: Tues:  
3.805 Mc-2000 Central / Thur: 3.875 Mc-2000 Central > Fri: 3.895 Mc-2000 Pacific / Sun: 14.263  
Mc-2000 UTC > 1st Wed (of the month) AM Net 3.880 Mc-2000 local (ET, CT, MT, PT) > Sun AM  
Net: 29.050 Mc-1200 Central

> >

-----  
Date: Tue, 02 Apr 2002 18:51:35 -0800  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: RF590A Hi everybody,

**Harris RF590A self test Fault for CW filter.**

Does anyone know why a self test in RF590A would result in FAULT for a CW filter when in fact the filter works fine and there is nothing wrong with the reception of CW signals. Any remedies ? Would appreciate it anyone can help. Thx.

-----  
Date: Tue, 02 Apr 2002 19:35:57 -0800  
From: Martin Colby <mcolby@cts.com>  
Subject: Prem-Rx: Re: Racal 6790 Connector & Firmware Many thanks to all who provided help on locating one of the weird connectors for the Racal 6790/GM serial control/comm cable.

Through the help of Shaun Merrigan, I located & ordered one from William Perry,

<http://www.williamperrycompany.com/>

Pretty reasonable too, I thought, at \$35 new/\$18 used.

In case anyone's interested, model number there is: MS3116E16-26S

In my interest in trying out Al Tipword's new software for the Racal, I discovered the next part of my shortfall: I need an update set of firmware (type RAGM01, p/n A09666, rather than the old p/n A08449 that I have now).

(Significant difference for this app is ability to provide AGC level readback.)

Any suggestions on a source?

Many thanks in advance,

Martin Colby

mcolby@cts.com

San Diego, CA

-----  
Date: Wed, 3 Apr 2002 13:54:52 +0100  
From: rob.j.davies@philips.com  
Subject: Re: Prem-Rx: RF590A > Harris RF590A self test Fault for CW filter.

> Does anyone know why a self test in RF590A would result > in FAULT for a CW filter when in fact the filter works fine > and there is nothing wrong with the reception of CW signals.

Dunno. My RA1792 reports 'low gain' or something similar on what turned out to be the 300Hz filter setting. No obvious problems in operation so I'm assuming for now that the filter has a higher insertion loss than the BITE routine expected. One day I'll have the machine on the bench to investigate further.

Rob

-----  
Date: Wed, 3 Apr 2002 07:19:02 -0600  
From: "Michael Melland" <w9wis@charter.net>  
Subject: Re: Prem-Rx: Re: Racal 6790 Connector & Firmware Gary Wingerd gewingerd@netzero.com has them.... and about everything else you'd ever need.

Regards,  
Mike, W9WIS

-----  
Date: Thu, 04 Apr 2002 23:50:08 -0500  
From: "Mark S. Holden" <mark@bmas.org>  
Subject: Prem-Rx: Filter impedance & insertion loss? Hi

Does anyone know the impedance and typical insertion loss of filters for the Racal 6790?

I've got some spares I'd like to put in my AOR 7030+ .

I know the 7030 wants filters with an impedance of between 1500 and 2000 ohms. Typical 7030 filters have an insertion loss of between 5 and 8db.

Thanks for any help you can offer.

Regards,  
Mark

-----  
Date: Fri, 5 Apr 2002 07:02:58 +0200  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: Software Hagenuk RX1001 / NRD72 FS

Hi all,

Anybody that has the software available to control the Hagenuk RX1001 = via a pc ?

Also looking for a good home for a JRC model NRD-72 receiver, contact me = via bloemen@wxs.nl if interested.

Regards,  
Herbert

-----  
Date: Sat, 06 Apr 2002 13:51:42 -0800  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: RF-590A Hi.

Does anyone know if the Tunable Band Pass Filter with Harris P/N 10215-6650 is the same as the A-19 Band Pass filter option ( RF-596A-02 ) ? Or is it a standard BP filter that comes with all 590A units ? Anyone got a picture of the RF-596A-02 option ??? Thx

-----  
Date: Sat, 06 Apr 2002 11:29:06 -0800  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: RF-590A At 01:51 PM 4/6/02 -0800, Ahmet Gundes wrote: >Hi.

>> Does anyone know if the Tunable Band Pass Filter with >Harris P/N 10215-6650 is the same as the A-19 >Band Pass filter option ( RF-596A-02 ) ? Or is it a standard >BP filter that comes with all 590A units ? >Anyone got a picture of the RF-596A-02 option ??? >Thx

**The A19 Preselector Assy I have in front of me is P/N 10215-6600. It consists of two parts: a serial to parallel logic board and the actual tunable bandpass filter board. These have P/Ns 10215-6660 and 10215-6670 respectively. The manual suggest variants 10215-6661 and 10215-6671.**

Jan

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Sun, 07 Apr 2002 08:31:00 -0700 (PDT)

From: canton@island.net

Subject: Prem-Rx: Sailor Marine HF Station - info needed I've recently acquired a complete Sailor HF station comprised of the following

Scanning Receiver Type R1121

US Exciter Type S1303

RadioTelex Modem Type ARQ H1240

Transmitter Type T1130A

These units are all rack mounted in a single (and very heavy) metal case linked together with control cables which are in turn tied together in two flat approximately 1" by 8" by 1" connection boxes. All in all this appears to be a complete marine HF station which I would like to get operational. Before doing that though it would be nice to have some information about the operation and proper connections required. Also I suspect that the Modem connects to a terminal unit and it would be useful to know something about its nature before I start experiments to regular dumb terminals, etc.

If anyone has information about these units I'd be most appreciative. I can be reached by email at 'canton@mail.island.net'. I'd be happy to pay any copying charges for manuals, brochures or whatever.

thanks Chris Anton VE7TOP

-----  
Date: Fri, 12 Apr 2002 15:54:29 EDT

From: GandalfG8@aol.com

Subject: Prem-Rx: Solid coax repairs - --part1\_cc.9d48fd4.29e89575\_boundary

Hi All I know this is a bit off topic but I have seen other test equipment related postings so that's my only excuse:-) I've got an HP 8558B spectrum analyser needing some repairs. Most will have to wait until the manual arrives but I'm cautious about one that looks to be straightforward. Some of the internal connections are made via a solid coax soldered into SMA connectors. The inner is trimmed to enter a small socket in the connector and it's just the outer that's soldered. The soldered joint on one cable has fractured completely and it would seem a simple job just to resolder it.... but is it?? Does anyone know if there are any special precautions to be taken when soldering this stuff? I don't know what the dielectric is and don't want to risk cooking it as I only have one chance to get it right. Nigel Clarke G8PZR

- --part1\_cc.9d48fd4.29e89575\_boundary

< HTML> < FONT FACE= arial, helvetica> < FONT SIZE= 2> Hi All < BR> I know this is a bit off topic but I have seen other test equipment related postings so that's my only excuse:-) < BR> I've got an HP 8558B spectrum analyser needing some repairs. < BR> Most will have to wait until the manual arrives but I'm cautious about one that looks to be straightforward. < BR> Some of the internal connections are made via a solid coax soldered into SMA connectors. The inner is trimmed to enter a small socket in the connector and it's just the outer that's soldered. The soldered joint on one cable has fractured completely and it would seem a simple job just to resolder it.... < BR> but is it?? < BR> Does anyone know if there are any special precautions to be taken when soldering this stuff? < BR> I don't know what the dielectric is and don't want to risk cooking it as I only have one chance to get it right. < BR> Nigel Clarke < BR> G8PZR < /FONT> < /HTML>



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< BR> Nigel Clarke < BR> G8PZR</FONT> </FONT> </BLOCKQUOTE> </BODY> </HTML>

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Date: Fri, 12 Apr 2002 16:18:41 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Solid coax repairs

- -----\_ = \_NextPart\_001\_01C1E25F.3CD75500 Content-Type: text/plain

Also, dielectric is Teflon so heat not a real issue. good luck fc

- -----Original Message-----

From: GandalfG8@aol.com [mailto:GandalfG8@aol.com] Sent: Friday, April 12, 2002 3:54 PM To:  
premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: Solid coax repairs

Hi All I know this is a bit off topic but I have seen other test equipment related postings so that's my only excuse:-) I've got an HP 8558B spectrum analyser needing some repairs. Most will have to wait until the manual arrives but I'm cautious about one that looks to be straightforward. Some of the internal connections are made via a solid coax soldered into SMA connectors. The inner is trimmed to enter a small socket in the connector and it's just the outer that's soldered. The soldered joint on one cable has fractured completely and it would seem a simple job just to resolder it.... but is it?? Does anyone know if there are any special precautions to be taken when soldering this stuff? I don't know what the dielectric is and don't want to risk cooking it as I only have one chance to get it right. Nigel Clarke G8PZR

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<DIV> <SPAN class=390281720-12042002> <FONT face=Arial color=#0000ff size=2> &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp; Also, dielectric is Teflon so heat not a real issue. good luck&nbsp;&nbsp;&nbsp; fc</FONT></SPAN></DIV> <BLOCKQUOTE> <DIV class=OutlookMessageHeader dir=ltr align=left> <FONT face=Tahoma size=2> -----Original Message-----< BR> < B>

From:</B> GandalfG8@aol.com [mailto:GandalfG8@aol.com]< BR> < B> Sent:</B> Friday, April 12, 2002 3:54 PM< BR> < B> To:</B> premium-rx@kahuna.sdsu.edu< BR> < B>

Subject:</B> Prem-Rx: Solid coax repairs< BR> < BR> </FONT></DIV> <FONT face=arial,Helvetica> <FONT size=2> Hi All < BR> I know this is a bit off topic but I have seen other test equipment related postings so that's my only excuse:-) < BR> I've got an HP 8558B spectrum analyser needing some repairs. < BR> Most will have to wait until the manual arrives but I'm cautious about one that looks to be straightforward. < BR> Some of the internal connections are made via a solid coax soldered into SMA connectors. The inner is trimmed to enter a small socket in the connector and it's just the outer that's soldered. The soldered joint on one cable has fractured completely and it would seem a simple job just to resolder it.... < BR> but is it?? < BR> Does anyone know if there are any special precautions to be taken when soldering this stuff? < BR> I don't know what the dielectric is and don't want to risk cooking it as I only have one chance to get it right.  
< BR> Nigel Clarke < BR> G8PZR</FONT> </FONT> </BLOCKQUOTE> </BODY> </HTML>

- -----\_ = \_NextPart\_001\_01C1E25F.3CD75500--

-----  
Date: Sat, 13 Apr 2002 00:00:41 -0400  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: RF-590A Does anyone know the memory backup battery voltage used in RF-590A ?

**Thx.**

-----  
Date: Sun, 14 Apr 2002 13:01:36 EDT  
From: Llgpt@aol.com  
Subject: Prem-Rx: Looking for a manual in English for a Siemens E311E2 Does anyone know wher I could obtain a manual for a Siemens E311E2 that is in English?

**Thanks,**

**Les Locklear Gulfport, MS.**

-----  
Date: Sun, 14 Apr 2002 20:04:19 -0500  
From: mikea <mikea@mikea.ath.cx>  
Subject: Re: Prem-Rx: Looking for a manual in English for a Siemens E311E2 On Sun, Apr 14, 2002 at 01:01:36PM -0400, Llgpt@aol.com wrote: > Does anyone know wher I could obtain a manual for a Siemens E311E2 that is in > English?

**No, but I read German. You can send the Rx and manual to me.**

**- -- Mike Andrews mikea@mikea.ath.cx Tired old sysadmin since 1964**

-----  
Date: Sun, 14 Apr 2002 21:50:49 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: Looking for a manual in English for a Siemens E311E2

Hi

**Corollary suggestion: Get a German-English dictionary. It will help with a lot; many/most german technical terms are compound words; a good number contain English cognates.**

**Bound to be easier than adjusting Alfa Romeo fuel injection with a sketchy tech book in Italian; (teenage pastime).**

**Have fun with your Empfänger (sp?).**

**73,**

**Steve**

**On Sun, 14 Apr 2002, mikea wrote:**

**> On Sun, Apr 14, 2002 at 01:01:36PM -0400, Llgpt@aol.com wrote:**

**> > Does anyone know wher I could obtain a manual for a Siemens E311E2 that is in**

**> > English?**

**> > No, but I read German. You can send the Rx and manual to me.**

**> > -- > Mike Andrews > mikea@mikea.ath.cx > Tired old sysadmin since 1964 >**



Date: Sun, 14 Apr 2002 20:55:14 -0500  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: SP-325 info needed I just picked up a Ten-Tec SP-325 receiver. Nice receiver but it has some display problems. Does anyone have or know where I can get a schematic, parts layout, or possibly even a service manual?

Thanks, Terry O'

-----  
Date: Mon, 15 Apr 2002 14:56:30 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: Hi All, Anybody know of a source for Racal RA6830 Chassis Sleeves? I need 2 and a friend needs one. fc

-----  
Date: Tue, 16 Apr 2002 08:47:50 +0200  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: Siemens/R&S LSB filter

- -----=\_NextPart\_000\_0014\_01C1E523.63A41BC0

Hi all,

Still looking for an 300Hz..3kHz LSB filter for the Siemens E401/ Rohde = & Schwarz EK47. The part number is S42045-E63-A1 (Siemens) or EK47-32 (R&S).

In case there is an interest, I have the USB filter available.

Regards,

Herbert

- -----=\_NextPart\_000\_0014\_01C1E523.63A41BC0

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all,</FONT></DIV> <DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> Still
looking for an 300Hz..3kHz LSB = filter for the Siemens E401/ Rohde & Schwarz
EK47.</FONT></DIV> <DIV><FONT face= 3DArial size= 3D2> The part number is S42045-
E63-A1 = (Siemens) or EK47-32 (R&S).</FONT></DIV> <DIV> &nbsp;</DIV>
<DIV><FONT face= 3DArial size= 3D2> In case there is an interest, I have = the USB filter
available.</FONT></DIV> <DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial
size= 3D2> Regards,</FONT></DIV> <DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial
size= 3D2> Herbert</FONT></DIV> <DIV> &nbsp;</DIV></BODY></HTML>
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- -----=\_NextPart\_000\_0014\_01C1E523.63A41BC0--

-----  
Date: Wed, 17 Apr 2002 08:02:55 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: FW: hi All, A while ago Gary told me he was going to purchase a production run of RA6790 displays. This would be a good time to get a spare set. fc

- -----Original Message-----



Date: Mon, 22 Apr 2002 07:30:36 -0700  
From: jan@skirrow.org  
Subject: Prem-Rx: Audio Transformer Measurements A bit off topic ....

I want to measure the primary/secondary impedance of a high quality audio transformer. As I don't know the "standard" method (and have been unable to find one on the web or in my various books) I took a transformer of known spec, and tried various approaches to see if I could get the manufacturer's numbers. I can't.

I have a GR bridge operating at 1kHz. But the measured impedance varies depending on whether the other winding is open, terminated with the stated impedance, or shorted. None match the mfr spec.

Does anyone know how this is supposed to be done???

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Mon, 22 Apr 2002 08:34:52 -0700 (PDT)  
From: "Tom M." <courir26@yahoo.com>  
Subject: Re: Prem-Rx: Audio Transformer Measurements Jan,

I'm a mechanical engineer, so get your money's worth on this free electrical engineering opinion.

I believe you can input an AC voltage into one side of the transformer and measure the output voltage, the resulting voltage ratio would be equivalent to your impedance ratio.

e.g.

If you put 120VAC in and got 12 VAC (or 1200 VAC!!!) out, then your impedance ratio would be 10:1.

If used on a 600 ohm radio then, you'd have either 60 ohms or 6000 ohms on the other side (depending on which way you hooked it up).

This is the ME method.

EE's, please chime in! If I'm all wet, it won't be the first time!

73 Tom N5OFF - --- jan@skirrow.org wrote: > A bit off topic ....

> > I want to measure the primary/secondary impedance of a high quality audio > transformer. As I don't know the "standard" method (and have been unable to > find one on the web or in my various books) I took a transformer of known > spec, and tried various approaches to see if I could get the manufacturer's > numbers. I can't.

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> > Does anyone know how this is supposed to be done???

> > Jan Skirrow, VE7DJX

> > > ... in beautiful British Columbia, Canada

> > \*\*\* <http://skirrow.org/Boatanchors/> \*\*\* >

-----  
Do You Yahoo!? Yahoo! Games - play chess, backgammon, pool and more <http://games.yahoo.com/>

Date: Mon, 22 Apr 2002 11:54:59 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Audio Transformer Measurements Hi All, This also works but be sure to limit input power and voltage so you don't blow out the winding. You use a low voltage step down transformer and a series resistor. This allows you to use my method but limited to 60 Hz. A audio signal generator is a little safer and you can find the frequency response. The 60 hz method is great for audio out transformers when you want to pump some power through it. BTW a 10:1 turns ratio is: square root turns ratio to find impedance or about 3.16:1

fc (usually wet)

- -----Original Message-----

From: Tom M. [mailto:courir26@yahoo.com] Sent: Monday, April 22, 2002 11:35 AM To: jan@skirrow.org; premium-rx@kahuna.sdsu.edu

Subject: Re: Prem-Rx: Audio Transformer Measurements

Jan,

I'm a mechanical engineer, so get your money's worth on this free electrical engineering opinion.

I believe you can input an AC voltage into one side of the transformer and measure the output voltage, the resulting voltage ratio would be equivalent to your impedance ratio.

e.g.

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> > I have a GR bridge operating at 1kHz. But the measured impedance varies > depending on whether the other winding is open, terminated with the stated

> impedance, or shorted. None match the mfr spec.

> > Does anyone know how this is supposed to be done???

> > Jan Skirrow, VE7DJX

> > > ... in beautiful British Columbia, Canada

> > \*\*\* <http://skirrow.org/Boatanchors/> \*\*\* >

---

Do You Yahoo!? Yahoo! Games - play chess, backgammon, pool and more <http://games.yahoo.com/>

Date: Mon, 22 Apr 2002 12:17:48 -0400

From: Mark Donaldson <mark.donaldson@third-rail.net>

Subject: RE: Prem-Rx: Audio Transformer Measurements Jan,

One thing to keep in mind is the output impedance of your signal source, if it is an audio generator it is probably 600 Ohms, this is fine if you are terminated into a 600 Ohm transformer but if it is a high impedance winding, say 10K Ohms the mismatch could have a significant affect on your frequency response measurements. I think Frank was correct in suggesting a series resistor on your signal source, the question is how big it needs to be to not load down the transformer.

MD

- -----Original Message-----

From: Carcia, Frank A. HS [mailto:francis.carcia@hs.utc.com] Sent: Monday, April 22, 2002 11:55 AM To: 'Tom M.'; jan@skirrow.org; premium-rx@kahuna.sdsu.edu

Subject: RE: Prem-Rx: Audio Transformer Measurements

Hi All, This also works but be sure to limit input power and voltage so you don't blow out the winding. You use a low voltage step down transformer and a series resistor. This allows you to use my method but limited to 60 Hz. A audio signal generator is a little safer and you can find the frequency response. The 60 hz method is great for audio out transformers when you want to pump some power through it. BTW a 10:1 turns ratio is: square root turns ratio to find impedance or about 3.16:1

fc (usually wet)

- -----Original Message-----

From: Tom M. [mailto:courir26@yahoo.com] Sent: Monday, April 22, 2002 11:35 AM To: jan@skirrow.org; premium-rx@kahuna.sdsu.edu

Subject: Re: Prem-Rx: Audio Transformer Measurements

Jan,

I'm a mechanical engineer, so get your money's worth on this free electrical engineering opinion.

I believe you can input an AC voltage into one side of the transformer and measure the output voltage, the resulting voltage ratio would be equivalent to your impedance ratio.

e.g.

If you put 120VAC in and got 12 VAC (or 1200 VAC!!!) out, then your impedance ratio would be 10:1.

If used on a 600 ohm radio then, you'd have either 60 ohms or 6000 ohms on the other side (depending on which way you hooked it up).

This is the ME method.

EE's, please chime in! If I'm all wet, it won't be the first time!

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> > Jan Skirrow, VE7DJX

> > > ... in beautiful British Columbia, Canada

> > \*\*\* <http://skirrow.org/Boatanchors/> \*\*\* >

Do You Yahoo!? Yahoo! Games - play chess, backgammon, pool and more <http://games.yahoo.com/>

-----  
Date: Mon, 22 Apr 2002 12:20:29 -0400

From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>

Subject: Re: Prem-Rx: Audio Transformer Measurements Actually, Jan, you're not quite correct. The voltage ratio is the same as the turns ratio in a transformer, but the impedance ratio scales like the square of the turns ratio. Thus, in your example, below, the voltage ratio is 10, but the impedance ratio is 100.

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-----  
Date: Mon, 22 Apr 2002 12:39:12 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Audio Transformer Measurements I was wet on Z ratio. Jim has it right.

- -----Original Message-----

From: James C. Garland [mailto:4cx250b@miavx1.acs.muohio.edu] Sent: Monday, April 22, 2002 12:20 PM To: Tom M. Cc: premium-rx@kahuna.sdsu.edu

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-----  
Date: Mon, 22 Apr 2002 17:05:16 -0000  
From: "JEAN-PHILIPPE.LEBON" <JEAN-PHILIPPE.LEBON@wanadoo.fr>  
Subject: Prem-Rx: mc kay dymek dr333 service manual

- -----= \_NextPart\_000\_0015\_01C1EA1F.DFFEFB80

i own this very interesting rx , but on various frequencies it is dumb : = nothing can be received apart from a background noise and hiss , no = frequency drift noticed . any service manual available ? obviously , = photocopies and airmail delivery at my expense . 73s . jean philippe

- -----= \_NextPart\_000\_0015\_01C1EA1F.DFFEFB80

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</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2>i own this very
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background = noise and hiss , no frequency drift noticed . any service manual available ? obviously ,
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philippe </FONT></DIV> <DIV> &nbsp;</DIV></BODY></HTML>
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- -----= \_NextPart\_000\_0015\_01C1EA1F.DFFEFB80--

-----  
Date: Mon, 22 Apr 2002 12:37:41 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Audio Transformer Measurements Mark, The series resistor decreases the load on the generator. You measure the voltage across the resistor and compare it to the voltage across the winding. The voltage at the generator is not a factor as long as it has enough swing to drive the loads. You have play with the value of the resistor to get a good ratio. I've even used a pot and set the pot so half the voltage appeared across both pot and transformer. Then just measure the resistance of the pot. 60 hz power is great for high power audio transformers but you have to be careful with source impedance. fc

- -----Original Message-----

From: Mark Donaldson [mailto:[mark.donaldson@third-rail.net](mailto:mark.donaldson@third-rail.net)] Sent: Monday, April 22, 2002 12:18 PM  
To: [premium-rx@kahuna.sdsu.edu](mailto:premium-rx@kahuna.sdsu.edu)  
Subject: RE: Prem-Rx: Audio Transformer Measurements

Jan,

One thing to keep in mind is the output impedance of your signal source, if it is an audio generator it is probably 600 Ohms, this is fine if you are terminated into a 600 Ohm transformer but if it is a high impedance winding, say 10K Ohms the mismatch could have a significant affect on your frequency response measurements. I think Frank was correct in suggesting a series resistor on your signal source, the question is how big it needs to be to not load down the transformer.

MD

- -----Original Message-----



From: Carcia, Frank A. HS [mailto:francis.carcia@hs.utc.com] Sent: Monday, April 22, 2002 11:55 AM  
To: 'Tom M.'; jan@skirrow.org; premium-rx@kahuna.sdsu.edu  
Subject: RE: Prem-Rx: Audio Transformer Measurements

Hi All, This also works but be sure to limit input power and voltage so you don't blow out the winding. You use a low voltage step down transformer and a series resistor. This allows you to use my method but limited to 60 Hz. A audio signal generator is a little safer and you can find the frequency response. The 60 hz method is great for audio out transformers when you want to pump some power through it. BTW a 10:1 turns ratio is: square root turns ratio to find impedance or about 3.16:1

fc (usually wet)

- -----Original Message-----

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---

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-----  
Date: Mon, 22 Apr 2002 10:54:02 -0700 (PDT)  
From: "Tom M." <courir26@yahoo.com>

Subject: RE: Prem-Rx: Audio Transformer Measurements Never trust an ME on these questions.

I missed a step . . .

Details . . . . .

Sorry!

Tom - --- "Carcia, Frank A. HS" <francis.carcia@hs.utc.com> wrote: > I was wet on Z ratio. Jim has it right.

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From: James C. Garland [mailto:4cx250b@miavx1.acs.muohio.edu] > Sent: Monday, April 22, 2002 12:20 PM > To: Tom M. > Cc: premium-rx@kahuna.sdsu.edu >

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-----  
Date: Mon, 22 Apr 2002 17:25:45 -0400  
From: Arthur Shulman <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: mc kay dymek dr333 service manual That radio used to be sold by Universal  
Radio in Reynoldsburg, Ohio. You might check with them to see if they can copy a filed manual for you.

If it's any help, I have the manual for the DR-33C, but it's not nearly the same radio. Just some of the  
circuitry only, might be similar.

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"JEAN-PHILIPPE.LEBON" wrote:

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apart from a background noise and hiss , no > frequency drift noticed . any service manual available ?  
obviously , > photocopies and airmail delivery at my expense . 73s . jean philippe

-----  
Date: Mon, 22 Apr 2002 17:39:23 -0400  
From: Fred Osterman <osterman@dxing.com>  
Subject: Re: Prem-Rx: mc kay dymek dr333 service manual We do have the 34 page "Dymek DR333  
Owner's Manual" which includes 6 pages of schematics and PCB parts diagram. Contact me directly  
for further details. Fred Osterman Universal Radio Inc.

Arthur Shulman wrote:

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-- Fred Osterman E-Mail: osterman@DXing.com Universal Radio Research Web site:  
www.DXing.com Universal Radio Inc. Web site: www.universal-radio.com 6830 Americana Pkwy.  
Phone: 614 866-4267 Reynoldsburg, OH 43068 Fax Line: 614 866-2339

-----  
Date: Mon, 22 Apr 2002 17:54:00 EDT  
From: GandalfG8@aol.com  
Subject: Re: Prem-Rx: mc kay dymek dr333 service manual - --  
part1\_103.1428be9a.29f5e078\_boundary

Hi Jean Phillipe I've got the DR333C manual will be happy to let you have a copy if you send me your address. I assume from your email address that your in France. I'm in the UK so postal costs shouldn't be high enough to worry about. Whilst on the subject of the DR333C.... does anybody know if there is any later software available for it other than that originally supplied? Or, if not, does anyone have information on the raw serial port commands that are used. I'm also trying to find some of the add in Colins mechanical filters. Are these still available anywhere? and does anyone know if they are the same as those used in the DR333C? There's more room for alternative types in the DR333C so I'm struggling to resist the temptation of swapping mine over right now:-) regards Nigel Clarke

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--part1\_103.1428be9a.29f5e078\_boundary--

-----  
Date: Mon, 22 Apr 2002 15:08:31 -0700  
From: jan@skirrow.org  
Subject: RE: Prem-Rx: Audio Transformer Measurements Thanks to everyone who replied, especially to Frank who provided a practical approach!

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Mon, 22 Apr 2002 17:03:49 -0700  
From: Ben Wallace <bwallace@crash.cts.com>

Subject: Prem-Rx: Looking for Manual JRC NRD-92 Need a manual for a JRC NRD-92 Receiver (original manual or good copy).

Please contact me directly: bwallace@sd.cts.com

TIA -- Ben WB8HUR San Diego

-----  
Date: Mon, 22 Apr 2002 18:53:13 -0700  
From: "Steve Burney" <burneysm@earthlink.net>  
Subject: Prem-Rx: Need Mckay Dymek DR22 schematic Hi all,

I'm looking for a schematic diagram for the Mckay Dymek DR22 receiver. A service manual would be wonderful.

Thanks, Steve

-----  
Date: Mon, 22 Apr 2002 18:53:22 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Re: Prem-Rx: mc kay dymek dr333 service manual

- ----- = \_NextPart\_000\_008B\_01C1EA2E.F9F32020

Hi All

The DR 333 has no relationship to the DR33C other than its was = manufactured by the same company "Stoner Communications". I have to apologize that I am very short of time at the moment but = somewhere I have buried in my archives all the code used with the DR333. = Originally the code came with a software library for accessing the main = control functions of the receiver. This code was written in turbo C. but = if I can find the source code it could be re compiled. The mechanical filters are a very standard 526 series Collins filters in = one filter position a Murata ceramic filter may be used. I still have a = lot of the 2.7 KHz 526 9697 010 filters and some 30KHz ceramic filters. = but non of the other bandwidths

Regards Brian Comer ----- Original Message -----

From: GandalfG8@aol.com To: JEAN-PHILIPPE.LEBON@wanadoo.fr Cc: ":Prem?????????????????????  
Sent: Monday, April 22, 2002 2:54 PM

Subject: Re: Prem-Rx: mc kay dymek dr333 service manual

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From: < A title= 3DGandalfG8@aol.com href= 3D"mailto:GandalfG8@aol.com"> GandalfG8@aol.com</A> </DIV> < DIV style= 3D"FONT: 10pt arial"> < B> To: </B> < A title= 3DJEAN-PHILIPPE.LEBON@wanadoo.fr = href= 3D"mailto:JEAN-PHILIPPE.LEBON@wanadoo.fr"> JEAN-PHILIPPE.LEBON@wanadoo.fr</A> </DIV> < DIV style= 3D"FONT: 10pt arial"> < B> Cc: </B> < A = title= 3D":Prem?????????????????" = href= 3D"mailto:":Prem?????????????????"> ":Prem&#8809;&#16384;&#27392;&#24= 832;&#26624;&#29952;&#28160;&#24832;&#11776;&#29440;&#25600;&#29440;&#299= 52;&#11776;&#25856;&#25600;&#29952;</A> </DIV> < DIV style= 3D"FONT: 10pt arial"> < B> Sent: </B> Monday, April 22, 2002 = 2:54 PM</DIV> < DIV style= 3D"FONT: 10pt arial"> < B>

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Date: Mon, 22 Apr 2002 23:05:41 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: Re: Prem-Rx: Looking for Manual JRC NRD-92 Hmmmm...only a coincidence that the NRD-92 listed a couple days ago on ePay disappeared from the auction listing when the seller withdrew the item? ;-)

Darn the luck. Was hoping to bid on it myself! If you're the lucky man, let us know how you find its performance.

--howard n7exn

>  
From: Ben Wallace <bwallace@crash.cts.com>  
>> Date: Mon, 22 Apr 2002 17:03:49 -0700 > To: Premium-Rx@kahuna.sdsu.edu >  
Subject: Prem-Rx: Looking for Manual JRC NRD-92

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>> TIA -- Ben > WB8HUR San Diego >

-----  
Date: Mon, 22 Apr 2002 21:04:35 -0700  
From: Ben Wallace <bwallace@crash.cts.com>  
Subject: Re: Prem-Rx: Looking for Manual JRC NRD-92 Hi Howard,

**I wish !!! With Qualcomm stock at \$35 a share and Globalstar bankrupt, I'm thinking about moving in with Greg Bailey to save money.**

**73 -- Ben WB8HUR**

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-----  
Date: Mon, 22 Apr 2002 23:56:27 -0500  
From: "herschel p mccullough" <w5hpm@airmail.net>  
Subject: Re: Prem-Rx: Looking for Manual JRC NRD-92 and screw up your marriage, endanger your mental health..Ben please !! remember your dignity. mac/mc - ----- Original Message -----

From: Ben Wallace <bwallace@crash.cts.com> To: Howard L Ritter, Jr <hlritter@mindspring.com>;  
<Premium-Rx@kahuna.sdsu.edu> Sent: Monday, April 22, 2002 11:04 PM  
Subject: Re: Prem-Rx: Looking for Manual JRC NRD-92

> Hi Howard,

>> I wish !!! With Qualcomm stock at \$35 a share and Globalstar bankrupt, I'm > thinking about moving in with Greg Bailey to save money.

>> 73 -- Ben WB8HUR

>>>> At 11:05 PM 4/22/02 -0400, Howard L Ritter, Jr wrote:

>> Hmmm...only a coincidence that the NRD-92 listed a couple days ago on ePay

>> disappeared from the auction listing when the seller withdrew the item? ;-)

>>>> Darn the luck. Was hoping to bid on it myself! If you're the lucky man, let

>> us know how you find its performance.  
>>> --howard n7exn  
>>>>  
From: Ben Wallace <bwallace@crash.cts.com>  
>>> Date: Mon, 22 Apr 2002 17:03:49 -0700  
>> To: Premium-Rx@kahuna.sdsu.edu  
>>>  
Subject: Prem-Rx: Looking for Manual JRC NRD-92

>>>>> Need a manual for a JRC NRD-92 Receiver (original manual or good copy).  
>>>>> Please contact me directly: bwallace@sd.cts.com  
>>>>> TIA -- Ben  
>>> WB8HUR San Diego  
>>>>>

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Date: Tue, 23 Apr 2002 03:39:24 EDT  
From: GandalfG8@aol.com  
Subject: Re: Prem-Rx: mc kay dymek dr333 service manual - --  
part1\_45.165f2620.29f669ac\_boundary

Hi Brian Many thanks for your reply. If you do have time to search out the source code eventually that would be much appreciated. I was thinking of putting a data monitor on the RS232 port and just working my way through it but that's always time consuming and a bit hit and miss anyway. So far though I haven't even been able to use the 333C ...very frustrating:- (The original software doesn't seem to like running in a DOS window under WinME and I'm trying to avoid having to use a separate pc, or run two OSs on this one, but that's beginning to look like the only short term solution. I realise that the 33C and 333C are totally different but, without actually removing the 333 pcb, the filters did seem to be the same physical size. The 33c uses two sideband filters compared to only one in the 333C but I was hoping the lower bandwidth filters, which are the one's I need, would be the same. There's enough room in the 33C to replace the Colins filters with some bulkier crystal filters. I'd prefer not to do that except as a last resort but I am tempted to use those in the 333C if I can't find them elsewhere. I think that's all the 3s in the right order...phew:-) I wouldn't mind buying some of the others from you as spares though if you were happy with that. regards Nigel Clarke

--part1\_45.165f2620.29f669ac\_boundary

<HTML> <FONT FACE=arial,helvetica> <FONT SIZE=2> Hi Brian <BR> Many thanks for your reply. <BR> If you do have time to search out the source code eventually that would be much appreciated. I was thinking of putting a data monitor on the RS232 port and just working my way through it but that's always time consuming and a bit hit and miss anyway. <BR> So far though I haven't even been able to use the 333C ...very frustrating:- ( <BR> The original software doesn't seem to like running in a DOS window under WinME and I'm trying to avoid having to use a separate pc, or run two OSs on this one, but that's beginning to look like the only short term solution. <BR> I realise that the 33C and 333C are totally different but, without actually removing the 333 pcb, the filters did seem to be the same physical size. The 33c uses two sideband filters compared to only one in the 333C but I was hoping the lower bandwidth filters, which are the one's I need, would be the same. <BR> There's enough room in the 33C to replace the Colins filters with some bulkier crystal filters. I'd prefer not to do that except as a last resort but I am tempted to use those in the 333C if I can't find them elsewhere. <BR> I think that's all the 3s in the right order...phew:-) <BR> I wouldn't mind buying some of the others from you as spares though if you were happy with that. <BR> regards <BR> Nigel Clarke</FONT> </HTML>

--part1\_45.165f2620.29f669ac\_boundary--  
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Date: Tue, 23 Apr 2002 08:03:53 -0400 (EDT)  
From: Steve Stutman <steve@xenon.clickadeal.com>  
Subject: Re: Prem-Rx: Looking for Manual JRC NRD-92 And besides, Greg promised me his new garage for storage.

73,

Steve

KL7JT

On Mon, 22 Apr 2002, herschel p mccullough wrote:

> and screw up your marriage, endanger your mental health..Ben please !! > remember your dignity.  
mac/mc > ----- Original Message ----- >

From: Ben Wallace <bwallace@crash.cts.com

>> To: Howard L Ritter, Jr <hlritter@mindspring.com>; > <Premium-Rx@kahuna.sdsu.edu

>> Sent: Monday, April 22, 2002 11:04 PM >

Subject: Re: Prem-Rx: Looking for Manual JRC NRD-92

>>>> Hi Howard,

>>>> I wish !!! With Qualcomm stock at \$35 a share and Globalstar bankrupt, > I'm  
>> thinking about moving in with Greg Bailey to save money.

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>>>disappeared from the auction listing when the seller withdrew the item? > ;-)

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>>>>>> --howard n7exn

From: Ben Wallace <bwallace@crash.cts.com

>>>>> Date: Mon, 22 Apr 2002 17:03:49 -0700

>>>> To: Premium-Rx@kahuna.sdsu.edu

>>>>

Subject: Prem-Rx: Looking for Manual JRC NRD-92

>>>>>>> Need a manual for a JRC NRD-92 Receiver (original manual or good > copy).

>>>>>>> Please contact me directly: bwallace@sd.cts.com

>>>>>>> TIA -- Ben

>>>> WB8HUR San Diego

>>>>>>>>

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**End of premium-rx-digest V1 #185 \*\*\*\*\***

**Subject: premium-rx-digest V1 #186**

**premium-rx-digest Monday, May 6 2002 Volume 01 : Number 186**  
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----- Date: Tue, 23 Apr 2002 08:20:24 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: mc kay dymek dr333 service manual

- -----\_=\_NextPart\_001\_01C1EAC1.3E80CA20

Hi All, Send in the Collins Rockwell readers service page it R F Design and you will receive some interesting filter information. It took me 90 days to receive mine a while ago. fc





> Need a manual for a JRC NRD-92 Receiver (original manual or good copy).  
> > Please contact me directly: bwallace@sd.cts.com  
> > TIA -- Ben > WB8HUR San Diego >

-----  
Date: Wed, 24 Apr 2002 14:26:03 -0400  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: RF-590A RF-590A

Hi everybody,

Does anyone have a spare RF-590A Processor Board or would know where one can be purchased ?  
Would appreciate any and all help you can provide.

Thank you.

-----  
Date: Fri, 26 Apr 2002 11:07:02 -0400  
From: Mark Donaldson <mark.donaldson@third-rail.net>  
Subject: Prem-Rx: MCM2 Option on WJ8716/18 Anyone know what the MCM2 option is on a WJ8716 - 8718 RX. I do not have it in any of my manuals and see one on Epay with MCM2 listed as an option.

-----  
Date: Fri, 26 Apr 2002 12:15:58 -0400  
From: "tomvojtek" <tomvojtek@cox.net>  
Subject: Re: Prem-Rx: MCM2 Option on WJ8716/18 A copy of a manual for the WJ-8718 lists the MCM-2 as Remote/Manual Control Module. The MCM option is described as Manual Control Module. A note states that either MCM or MCM-2 is required with mainframe for receiver operation. The MCM-2 probably allows remote tuning of the receiver through a connection in the rear.

Tom

- ----- Original Message -----

From: "Mark Donaldson" <mark.donaldson@third-rail.net> To: <premium-rx@kahuna.sdsu.edu>  
Sent: Friday, April 26, 2002 11:07 AM  
Subject: Prem-Rx: MCM2 Option on WJ8716/18

> Anyone know what the MCM2 option is on a WJ8716 - 8718 RX. I do not have it in any of my manuals and see one on Epay with MCM2 listed as an option.

-----  
Date: Fri, 26 Apr 2002 21:01:56 -0500  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: Re: MCM-2 Option on WJ8716/18 The MCM-2 is the remote/manual control module. It allows remote control of the frequency and IF bandwidth via a 37-line parallel CMOS level input. It cost \$440 in 1982.

The MCM is not really an option. It is the front panel of the radio, unless you get the more deluxe MFP front panel.

Terry O'

Date: Mon, 6 May 2002 12:37:52 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: First Premium-RX meeting at Hostraders Hi All, I set up a RA6830 at the Hostraders Flea market in N.H. last Friday and it only took a couple hours to have another member surface, attracted to radio of course. Nice to meet Steve Stutman and his young son. We had a common friend camping close by so it was pretty interesting. Steve, Chris told me the beer story, sorry about that. I hope you didn't have to search for your keys too much. Also attending, Mark Donaldson fc

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**End of premium-rx-digest V1 #186 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #187**  
**premium-rx-digest Monday, May 13 2002 Volume 01 : Number 187**  
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----- Date: Mon, 6 May 2002 20:50:35 EDT  
From: Llgpt@aol.com  
Subject: Prem-Rx: R-1051 mini review A few days ago, Cecil Acuff who owns the R-1051 Shop Asked me if I would like to try out a recently rebuilt R-1051B. He knew that I had less than good results on the previous R-1051's owned.

In past years, there were certain circumstances and conditions that allowed the R-1051 to become the "receiver of the day". Now, I know that I'll hear From "experts" that the dynamic range etc. on the R-1051 series is less than optimal.....I know that, and no longer trust test instruments other than the two located on both sides of my head. test instruments only tell us what occurs under ideal conditions, not real world conditions.

This particular R-1051B that I have been listening to is remarkable in stability, sensitivity and selectivity is adequate under most conditions. Stability is good enough, that I have been listening to most am stations in ISB with two speakers. Nice audio for most swl stations.

Listening to ham nets and various frequencies of utility stations has been very pleasant. Only in the most critical situations does one wish for a narrower ssb filter (and maybe passband tuning).

Overall, I would say that Cecil has done a remarkable job in the alignment and repair of this receiver. I would not hesitate to send a R-1051 through his shop for repairs.

I have no connection with Cecil other than a friendship through tube receivers, and certainly have no sort of business relationship with his shop. But, if you need any repairs on your R-1051 receiver or just module repair, contact Cecil at [chacuff@datasync.net](mailto:chacuff@datasync.net), or <http://www.r1051shop.com/>

Les Locklear Gulfport, Ms.

-----  
Date: Mon, 6 May 2002 21:28:11 -0400 (EDT)  
From: <steve@clickadeal.com>  
Subject: Re: Prem-Rx: R-1051 mini review

Hi  
I thought you had to be a redneck to own one.:

They are stable, and also provide good wrist exercise; not that a sailor would need same.

73,

- - - Steve

KL7JT/1

-----  
Date: Mon, 06 May 2002 21:29:02 -0700  
From: Jerry Kincade <w5kp@swbell.net>  
Subject: Re: Prem-Rx: R-1051 mini review I resemble that remark. And Les, if you are going to Dayton, where will you hang out? Jerry W5KP Retired Navy

- ----- Original Message -----

From: <steve@clickadeal.com> To: <Llgpt@aol.com> Cc: <premium-rx@kahuna.sdsu.edu>  
Sent: Monday, May 06, 2002 6:28 PM  
Subject: Re: Prem-Rx: R-1051 mini review

>

Hi

> > I thought you had to be a redneck to own one.:)  
> > They are stable, and also provide good wrist exercise; not that a sailor > would need same.  
> > 73,  
> > > -- > Steve  
> > KL7JT/1  
> >

-----  
Date: Tue, 07 May 2002 15:10:36 -0400  
From: ipassets <machine.age@verizon.net>  
Subject: Prem-Rx: Plessey 2280 Receiver FOS Hi Folks

I am selling one of my Plessey rigs, a PRS-2280 in pristine condition. See it at:

<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1351475363>

Thanks to all.

John England

-----  
Date: Sat, 11 May 2002 16:41:55 -0500  
From: "Adams, Tom A." <TAdams@ecb.state.wi.us>  
Subject: Prem-Rx: A serious case of Racial infestation... and a question Greetings, All.

I'm sure my friend Terry O'Laughlin (who turned me on to premium receivers) is laughing his head off right now.

I recently bought an RA-6790/GM-13 from Gary Wingard, and I've fallen in love, HARD!!! So hard that in the past week I've purchased an RA-6793 and an RA-1772 From England (both in transit at this time). There goes the old income tax refund...

To make it worse... two days ago I took possession of TWO MORE RA-6790/GM-5s, sold as broken, but both now singing happily in my shack! They have me seriously eyeing the possibility of diversity reception of RTTY and digital data signals (that's what us Utility DXers do...).

In any event, enough about my insanity... the reason for writing is as follows.

In the archives, I saw some passing mention of the 6790's IF strip re. noise addition, due to the lack of "bobtail" filtering (i.e., post - IF amplification filters). While adding a 455 KHz post amplification filter strikes me as an idea that's worth exploring, this message set me to wondering about another issue on the rig which I've just run into.

I fully realize that the ultimate achievable sensitivity and S/N figure of any receiver is set in stone by the noise figure of the first RF stage, but has anyone here done any measurements on 6790s both WITH and WITHOUT the Racal preamp option installed?

In side by side comparison, the Wingerd rig, with the preamp (no doubt in PERFECT alignment at this point... he sent it 3 weeks ago) is consistently outperforming the "new" (unknown alignment) rigs. Not a surprise, but by "ears only" measurement at this point the issue doesn't seem to be one of front end sensitivity, rather one of S/N ratios in mixers of IF; the signals are THERE, but without the preamp they are perceived as "noisier" in the rig without the preamp.

I realize this isn't a scientific standard of measurement (I haven't had time to go much deeper), but I am sure it's not a matter of human preception or bias for or against one rig or the other either. Slightly more concrete results come from the fact that in RTTY reception of the same signal on both receivers (CFH, Canadian Forces Meteorology Center in Halifax, 10,536 KHz), using the same antenna (via multicoupler), and almost the same RTTY decoders (Universal M-7000 and M-8000), is significantly different. Even swapping decoders between radios, the rig without the preamp has a consistently higher data error rate (MUCH higher) than the rig WITH the preamp.

Does the preamp really make THAT MUCH much difference? If so, I'd find it amazing.

Has anyone done measurements making the comparison?

73's

Tom Adams, W9LBB Sun Prairie, WI

(Owner & Operator of the Mahon Loomis Memorial Monitoring Station, in his back yard!)

-----  
Date: Sun, 12 May 2002 17:15:42 +0200

From: "John Wilson" <johnwilson@freezone.co.uk>

Subject: Prem-Rx: Collins 75A-1 Not exactly premium, although it was in its day. I am bringing back to life a Collins 75A-1 and find that the oscillator and signal injection to the first mixer is wired in opposite fashion to the Collins schematic. Schematic shows conversion oscillator to pin 5 and signal to pin 8 (of a 6SA7). Tube data of the period confirms that this was the accepted way to use the 6SA7, but the receiver I have has oscillator to pin 8 and signal to pin 5. This is definitely original Collins wiring, and taking a look at dear old Langford-Smith "Radio Designers Handbook" reveals a lot I never knew about multi-grid mixers, and suggests that there are pro and con aspects of reversing the usual injection arrangements. All I asked on the Collins list was for anyone with either a 75A-1 receiver and/or a 75A-1 schematic to take a look and confirm the wiring on their particular receivers/schematics. I got one (only one) response, and that was From a member of this list. I find the general level of technical input on that other list to be virtually non-existent, so I've come up-market to ask the same question. Any takers??

Secondly, due to the generosity of a UK owner, I will have my hands on a Racal 3791 for review in the next few days. Apart from my usual measurements, if anyone on the list has a particular question on this receiver, let me know and I will try to accommodate you. It seems a shame to waste the opportunity, even if it's only to find out the colour of the front panel. Hope I can help someone. 73 -----

----- John Wilson Stone Hill Kings Nympton Umberleigh Devon EX37 9TR Tel: 01769 573047 Fax: 01769 574158

-----  
Date: Mon, 13 May 2002 19:32:47 +0200

From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: Racial lcd read-out noise ?

- -----=\_NextPart\_000\_0010\_01C1FAB4.F67E1580

Hi all,

Anybody aware of the lcd read-out causing problems on near-by standing = other receivers ?

How to solve this ?

Any help very much appreciated...

Regards,

Herbert Bloemen

- -----=\_NextPart\_000\_0010\_01C1FAB4.F67E1580

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all,</FONT></DIV> <DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial  
size= 3D2> Anybody aware of the lcd read-out = causing problems on near-by standing other  
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<DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> Regards,</FONT></DIV>  
<DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> Herbert  
Bloemen</FONT></DIV> <DIV> &nbsp;</DIV></BODY></HTML>
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- -----=\_NextPart\_000\_0010\_01C1FAB4.F67E1580--

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Date: Mon, 13 May 2002 15:13:14 -0700 (PDT)  
From: Robert Kelley <pasha@kali.com>  
Subject: Prem-Rx: I need HP 3456C manuals (op/service) I'll buy them, borrow them, whatever.

73 de AC7KE

-----  
Date: Mon, 13 May 2002 22:15:38 -0500  
From: "Joe Watson" <wwatson@mmcable.com>  
Subject: Prem-Rx: Info/repairs for WJ-8718

- -----=\_NextPart\_000\_000E\_01C1FACB.B5F3BF80

I have a WJ-8718 that seems to have a synthesizer problem and I need = either (a) to get or fabricate an extender board for board A5A1 or (b) = to find someone who has a setup for working on these and let him have a = crack at it.

The receiver is in very nice condition, so I would like to bring it back = to life.

Can anyone help with either (a) or (b)?

Thanks.

Joe Watson, W5WBR

- -----=\_NextPart\_000\_000E\_01C1FACB.B5F3BF80



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content= 3D"MSHTML 6.00.2715.400" name= 3DGENERATOR> <STYLE></STYLE>  
</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2>I have a WJ-  
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End of premium-rx-digest V1 #187 \*\*\*\*\*  
Subject: premium-rx-digest V1 #188  
premium-rx-digest Tuesday, May 28 2002 Volume 01 : Number 188  
-----

----- Date: Wed, 15 May 2002 20:16:06 -0700  
From: "Walter (Volodya) Salmaniw" <salmaniw@shaw.ca>  
Subject: Prem-Rx: Congratulations Greg! Sorry for using this forum, but I misplaced Greg Bailey's  
email address. I understand (via Jan Skirrow) that Friday is Greg's last day of school. He is hanging  
up his professorship to get back to what's more important in life...his beautiful wife, and his radio  
hobby! Thanks, Greg, for all your hard work over the years with this group. I'm looking forward to  
seeing you more often up here in the land of the oak leaves!.....Walt Salmaniw.

-----  
Date: Wed, 15 May 2002 20:38:48 -0700  
From: Ben Wallace <bwallace@crash.cts.com>  
Subject: Re: Prem-Rx: Congratulations Greg! Greg's address is: gbailey@mail.sdsu.edu

That Bailey guy has been planning his retirement for some years now. He has a nice house, VERY nice  
wife -- and a great, newly built detached ham shack in the back yard (though it lacks a refrigerator for  
adult beverages).

Not like Greg to "just fade away." I can imagine he will become a regular here on the group.

Ben -- WB8HUR San Diego

At 08:16 PM 5/15/02 -0700, Walter (Volodya) Salmaniw wrote: > Sorry for using this forum, but I  
misplaced Greg Bailey's email > address. I understand (via Jan Skirrow) that Friday is Greg's last day  
of > school. He is hanging up his professorship to get back to what's more > important in life....his  
beautiful wife, and his radio hobby! Thanks, > Greg, for all your hard work over the years with this  
group. I'm looking > forward to seeing you more often up here in the land of the oak > leaves!.....Walt  
Salmaniw. >

-----  
Date: Fri, 17 May 2002 18:07:09 -0400  
From: Ahmet Gundes <ahmetg@eltronik.com>

Subject: Prem-Rx: JRC CMF78 Hi. Would anybody have an extra JRC CMF78 ECSS Module they would like to sell. This module is used in NRD535 receivers for ECSS reception. Can be a used one, as long as it is in good working condition. Even will consider a non-working unit. Thank you. A. Gundes

-----  
Date: Sat, 18 May 2002 16:06:42 -0500  
From: "Adams, Tom A." <TAdams@ecb.state.wi.us>  
Subject: Prem-Rx: Racal RA-6793 "Mystery Module"

- -----\_ = \_NextPart\_001\_01C1FEAFE8D79920 Content-Type: text/plain

Greetings, Folks.

Well, my "new" RA-6793 has arrived, and is in pretty good shape. It's going to need some minor tweaks, and the front panel, key tops, and LCD displays need a THOROUGH cleaning with soap & water (this rig is clearly used, but not abused), but it's performing just fine.

I haven't had a whole lot of time to deal with it as yet (no days off until tomorrow), but popping the top dust cover I found something that has me scratching my head a bit.

Installed on the mounting pads of the (missing) ISB board, I found a heavy metal mounting base with a shielded module attached. It has two SMB connectors marked IN and OUT, power connections, and what is apparently a control cable of some sort (3 or 4 conductors) with an odd little mini-connector in it to allow removal.

The markings on it... RACAL CO 8984

Haven't had a chance to really tear into the radio and find out where the various wires and cables go; I'm figuring on doing that in a day or two (tomorrow is already slated for chasing down a pesky PLL unlock FAULT indication for the 2ND conversion oscillator in one of the 6790/GMs).

Anyone know what the Mystery Module is supposed to do?

Thanks,

Tom, W9LBB Mahon Loomis Memorial Monitoring Station & Irish Setter Rest Home Sun Prairie, WI

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Module is supposed to do?</FONT> </P>

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< P ALIGN= 3DLEFT> < FONT SIZE= 3D2 FACE= 3D"Arial"> Tom, W9LBB</FONT> </P>

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Date: Sun, 19 May 2002 15:24:48 EDT  
From: GandalfG8@aol.com  
Subject: Re: Prem-Rx: JRC CMF78 - --part1\_f9.1c5c6f6a.2a195600\_boundary

Hi I don't have a spare unit but I do have details of a mod that's supposed to improve lock range,  
originally supplied as part of a general upgrade kit by Lowe Electronics in the UK. If you do find one I  
can mail you details of the mod but I will be away from 23rd May for two weeks so don't be surprised if  
answers to mail after then are delayed. regards Nigel Clarke G8PZR

- --part1\_f9.1c5c6f6a.2a195600\_boundary

< HTML> < FONT FACE= arial, helvetica> < FONT SIZE= 2> Hi < BR> I don't have a spare unit but  
I do have details of a mod that's supposed to improve lock range, originally supplied as part of a  
general upgrade kit by Lowe Electronics in the UK. < BR> If you do find one I can mail you details of  
the mod but I will be away from 23rd May for two weeks so don't be surprised if answers to mail after  
then are delayed. < BR> regards < BR> Nigel Clarke < BR> G8PZR</FONT> </HTML>

--part1\_f9.1c5c6f6a.2a195600\_boundary--

-----  
Date: Mon, 20 May 2002 02:44:02 -0400  
From: "Thomas A. Adams" <103360.2133@compuserve.com>  
Subject: Prem-Rx: Racal Mystery Module; the mystery deepens Greetings!

Well, after going over the receiver and mystery module, we've found the following... please excuse me if it doesn't make much sense.

The module is being fed with an output of the A2 (1st mixer) module marked WIDEBAND IF OUT. It comes directly from U1, the 1st mixer. From here on, it gets pretty strange... Opening the module, it was found to be nothing more than a rather hefty broadband RF power amplifier. No mixers apparent which would be needed to convert 1st IF to 21.4 MHz; it's apparently being fed by the mixer with a raw, 40 MHz broadband 1st IF signal.

THAT'S where it gets TRULY wierd. At the output there are NO IF signals apparent to a spectrum analyzer; all I can see is the 1st conversion oscillator signal coming out of it, along with some stray RF feedthru from the antenna (input port) of the mixer!

Unless there's something very wrong with the receiver's 1st mixer stage (and I doubt that), or there's another mixer and injection signal somewhere that I'm not seeing (and which isn't working), ther ought to be other signals showing up here.

At this point, any and all opinions would be welcome... I'm stumped! Damned if I can figure out what this module is supposed to do, except possibly drive the mixer of a second RA-6793 in diversity reception, tho that seems unlikely. It's possible tho, because I note that this receiver has another unstandard feature, an output of the BFO signal... which would also be consistant with Master / Slave diversity operation.

73's,

Tom, W9LBB

-----  
Date: Tue, 28 May 2002 22:14:37 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: Prem-Rx: Racal on eBay--what have I done??? Well, after a year or two of keeping my eyes open for just the right Racal 6790GM from one source or another, I saw what looks like a pristine example on ePay, with the option to "Buy It Now" for \$700. The photos (close-ups) show a unit that looks like new (which is also what the seller says...) so I gave in to impulse, since the price is lower, especially for a late model in excellent condition, by a considerable margin than anything else I've seen.

Do the later models have white LED lighting, or was green the last?

Any words of wisdom, congratulation, or commiseration, as the case may be? (What is the case?)

--howard n7exn

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**End of premium-rx-digest V1 #188 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #189**  
**premium-rx-digest Wednesday, June 5 2002 Volume 01 : Number 189**

----- Date: Wed, 29 May 2002 10:38:13 -0700  
From: "Martek, Gary" <Gary.Martek@metawave.com>

Subject: RE: Prem-Rx: Racal on eBay--what have I done??? Hi Howard, talk about impulse, I just bought 3 (three)! RA6778C receivers. Does anyone have an opinion about these radios?

- -----Original Message-----

From: Howard L Ritter, Jr [mailto:hlritter@mindspring.com] Sent: Tuesday, May 28, 2002 7:15 PM  
To: Premium-Rx@kahuna.sdsu.edu

Subject: Prem-Rx: Racal on eBay--what have I done???

Well, after a year or two of keeping my eyes open for just the right Racal 6790GM from one source or another, I saw what looks like a pristine example on ePay, with the option to "Buy It Now" for \$700. The photos (close-ups) show a unit that looks like new (which is also what the seller says...) so I gave in to impulse, since the price is lower, especially for a late model in excellent condition, by a considerable margin than anything else I've seen.

Do the later models have white LED lighting, or was green the last?

Any words of wisdom, congratulation, or commiseration, as the case may be? (What is the case?)

--howard n7exn

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Date: Thu, 30 May 2002 01:07:07 +0200

From: KuD-BS@t-online.de (KD Elektronik GmbH)

Subject: Prem-Rx: circuit diagram for Echophone EC-1A Dear friends, during a stroke of nostalgia I bought a Echophone EC-1A. I had one when I was about 16 years old. This was my first real receiver, bought with self earned money. As this one needs some attention I am looking for a circuit diagram.

best regards Hans-J. Kneisner

-----  
Date: Thu, 30 May 2002 10:34:19 EDT

From: GandalfG8@aol.com

Subject: Re: Prem-Rx: circuit diagram for Echophone EC-1A Hi Your model doesn't seem to be listed here but it might be a good starting point..

[http://www.nostalgiaair.org/NostalgiaAir/Schematics/schem\\_ERM.htm](http://www.nostalgiaair.org/NostalgiaAir/Schematics/schem_ERM.htm) regards Nigel Clarke G8PZR

-----  
Date: Mon, 3 Jun 2002 20:17:33 -0400

From: "Thomas A. Adams" <103360.2133@compuserve.com>

Subject: Prem-Rx: My RA1772 Arrived... God Bless England! :o) My (seemingly) long awaited Racal RA1772 has just arrived. A few comments are in order.

First off... VERY generous kudos to the folks at Telford Electronics in Telford, Shropshire, England; thier service is FIRST RATE, as is the product they sent. Special thanks to Annie, who patiently sheperded an ignorant Yank thru the intricacies of Pounds Sterling, Euros, and US Dollars!

<< smile >>

These people do it RIGHT... they even provided me with a power cord with an American outlet plug on it, and it was unnecessary for me to change the power jumper plug from 220 to 115; they'd already done so before packing the rig!

Using the cheapest Royal Post shipping option, I wasn't expecting to see the radio before mid July (30 day "boat mail"), but apparently there was aircraft space available when Telford shipped late last week.

To get past the FCC imposed "Type Acceptance" number hassle at Customs (mentioned recently on this list) the receiver was shipped as OBSOLETE ELECTRONICS, which, in fact, it IS!

The receiver arrived in fine condition (VERY adequately packed!), and is operating next to me right now, listening on 6959 KHz for an expected appearance of the LINCOLNSHIRE POACHER "spook" station.

BTW... Telford provided me with an excellent set of copies of the Racal manuals (Maintenance parts 1 & 2, and Operator's manual). If the list member who was looking frantically for a copy of Part 1 still needs it, please write me off the list. We'll see what can be arranged re. a loan or copy.

Perhaps I've been spoiled by too many 6790s here, but it seems to me that the 1772 has a good bit more synthesizer noise than I've become used to; sensitivity is excellent, but the hum of the synth in the background is a bit unnerving. I suppose it's to be expected in a synth rig of '60s - '70s design vintage. The synth noise doesn't seem to be a limiting factor; just a minor irritation.

Equally unnerving to a 6790 user; when spinning the dial FAST to get across a band quickly, the red PLL LOCK light comes on! It will settle down & lock up nicely when you stop spinning, but it catches you off guard the first time. Just an idiosyncrasy to get used to.

That dial, BTW, is SILKY SMOOTH, and the dial brake adjustment is something the 6790 could use! conversely, the 1772 could use the 6790's 1 Hz step option, so it all balances out.

I love this rig so far, and it reminds me of working with British autos or motorcycles; most everything is familiar, but done just a LITTLE bit differently than thier American cousins do it.

It's apparent to me that there were MANY versions of this rig made, and there was more than one front panel made up for them. Just to define what version we're talking about here, mine has the following options installed:

- -9420 high stability time base oscillator - -Tunable preselector option - -AFC module

Filters installed are .1 / .4 / 1.8 / 2.7LSB / 2.7USB

I DO NOT have the ISB or FSK options on board... nor are they really needed by me. In any case, if the FSK option were on board, according to the manual a different front panel would have been installed with MODE switch position markings for NORMAL and REVERSE polarity FSK, and a LOCK position for tuning in without the RTTY machine "running open" and printing trash.

One thing about options that strikes me as particularly odd; this radio doesn't have a "memory floater" battery for the synth and displays! THAT feature is listed in the manual as an OPTION! I'll be looking at remedying that situation posthaste!

In any event... I got a surprise almost immediately. The MODE switch does NOT have a CW position! Instead, it has a USB + VAR BFO setting. For me anyway, it seems that I'll have to go into the radio and see if it can be reconfigured a bit; it is indeed a USB filter position (I'd much prefer a symetrical filter here), and the BFO is set off to one side; it tunes the range of the USB filter, zero beats, and then hits the lower stop! The selectivity control seems to crank in the tighter filters in this position (ie, it's not disabled as it is in the fixed LSB / USB mode positions).

BTW... a mechanical vernier drive on the BFO was a VERY pleasant surprise indeed!

The internal speaker is a VERY WELCOME feature! Surprisingly, it sounds pretty good despite it's small size. It can be disabled by a slide switch in the middle of the speaker grill if so desired.

Which brings us to the headset jacks... plural.

There are TWO of them on the front panel, on the right and left lower corners. One of my pet peeves with a lot of receivers is that plugging in a headset doesn't mute the speaker (most modern rigs run external ones). I don't know yet if an external is muted on this rig either, but plugging into the right jack SURE as hell mutes the INTERNAL speaker! The left jack has no effect in the internal speaker.

An aside... the LINCOLNSHIRE POACHER just came on, in perfect tune (USB), as expected.

A hour on the 11,175 KHz military aero frequency was gratifying indeed. Propagation is good today, and there was a WIDE variation in incoming signal levels, which gave me a good feel for AGC performance. Andrews AFB, and an Air Force Reserve KC-10 tanker (practically overhead, from the sound of it! Madison is under several approach routes to air to air refueling ops areas), with thier VERY high signal levels, were quite nicely

handled in both available AGC positions.

The AGC attack / release speed of the rig seems much faster than the 6790 (good), but the gain reduction isn't as deep (bad).

On weaker SSB signals (Diego Garcia, Lajes Azores, numerous aircraft) the AGC did a pretty good job of knocking down the noise level during the transmissions, but the 6790 consistently did a better job on the weaker stuff (not a big surprise there).

Reception of data transmissions were hampered a bit by the odd arrangement (already mentioned) of the CW position. I had to deviate from my normal operating procedure by setting the M8000 for reverse FSK polarity because of the reversed BFO position re. my norm on a 6790 (for 850 Hz RTTY, I normally set the rig on the carrier zero beat frequency, and set the BFO @ -2.55 KHz).

Calibration accuracy & frequency stability are MORE than adequate for data transmission tuning and extended monitoring... just as one would expect From a radio with the name Racal on the front panel.

AM has a serious drawback; the receiver is locked in to one bandwidth (8 KHz). I'll be looking at the schematics to see if this can be easily remedied to provide IF bandwidth switching options.

On the other hand, the front end performs well on the 31 metre broadcast band... it handles hairy signal levels without any apparent overload / intermod trash.

All in all, at this point I'd recommend the RA1772 as a quite good premium receiver. It's clearly NOT on a par in many areas with Racal's later "super receiver" designs; it's lacking thier flexibility & operator options (again, not a surprise), and it has it's particular idiosyncracies. However, in overall performance it STILL blows away most current ham / SWL designs (let alone its contemporary designs!), even tho it's a 25 - 30 year old product.

I give it a Thumbs Up, and 4 out of 5 stars. Good value for the money.

73's,

Tom, W9LBB, Mahon Loomis Memorial Monitoring Station & Irish Setter Retirement Home, Sun Prairie, WI

-----  
Date: Tue, 4 Jun 2002 18:25:25 -0400

From: "Thomas A. Adams" <103360.2133@compuserve.com>

Subject: Prem-Rx: More Racal RA1772 info I thought some of you might find a message I sent to Terry O. re. RA1772 to be of interest.

- -----Forwarded Message-----

From: Thomas A. Adams, 103360.2133@compuserve.com To: "Terry O'Laughlin",

INTERNET:terryo@wort-fm.terracom.net Date: 6/4/02 4:57 PM

I suppose you've seen my RA1772 posting. There's an update to it.

Comparing the radio to the manuals... it turns out that I DO have the ISB function installed after all, according to the COMPLETE model number (listed on a plate on the back panel):

RA1772 / X / S3 / R / B3 / O / C

I will translate...



This is a basic RA1772 receiver, plus;

FIRST SUFFIX = Crystal filter configuration.

A= USB & LSB (3 KHz), .3 KHz, 3 KHz, 8 KHz B= USB & LSB (3 KHz), .3 KHz, 1 KHz, 8 KHz C= USB (3 KHz), .3 KHz, 1. KHz, 3 KHz, 8 KHz D= USB (2.7 KHz), .3 KHz, 1 KHz, 3 KHz, 8 KHz E= USB & LSB (6 KHz), 3 KHz, 8 KHz (apparently a common ISB setup for rigs with AFC) F= USB & LSB (6 KHz), 1 KHz, 8 KHz. (Same as above) G= USB & LSB (6 KHz), 1 KHz, 3, KHz, 13 KHz (apparently a common ISB setup for rigs without AFC) H= USB & ISB (3 KHz), 1, 3 KHz, 8 KHz

Unfortunately, MY radio is suffix X.

"Additional suffix letters will be introduced as further filter combinations are defined".

So sayeth Bracknell.

SECOND SUFFIX = Frequency standard fitted

O= None fitted; uses external standard. S2= Type 9400 fitted (ie, standard stability unit). S3= Type 9420 fitted (ie, high stability ovenized unit)

THIRD SUFFIX = Not used (permanently at O).

Why then is my radio an R??? Special order? Late production?

FORTH SUFFIX = ISB Filter Identification

O= Not fitted B3= 3 KHz filter (2.7KHz minimum bandwidth) B6= 6 KHz filter (5.7 KHz minimum bandwidth)

FIFTH SUFFIX = Frequency Shift Keying

O= Not fitted F= Fitted

SIXTH SUFFIX = Automatic Frequency Control

O= Not fitted C= Fitted

The manual further states that when the AFC option is installed, a "carrier filter" (probably the 100 Hz I have) is installed for it's use, limiting the total symmetrical filters installable to three. Since the 1.8 KHz and .4 KHz aren't suitable for AM use, I'm guessing the AM crystal filter (8 KHz) is hardwired, off of the selector switch... and the lack of other AM positions isn't inherent in the design. In fact, the manual makes it clear that bandwidth selection is normally available in AM; I guess it's just NOT with the option / filter configuration I have.

Just scanning the manual it looks like a LOT of tricks and options are installed in the radio by hardwiring rotary switches... some of them look like the sort of tricks that hams add to rigs (or, I should say, USED to add to rigs, before they got so damned concerned about resale prices!).

Best guess; from configuration, nomenclature plate, and mods record plate on this thing, it's probably ex- Royal Navy or RAF, kept in a nice, clean fixed installation on rack slides (no paint damage on rack screw holes), and it spent it's service days reading a point to point ISB RTTY or narrow bandwidth "small kineplex" link of some sort.

A lot of these rigs seem to be turning up in England retired from maritime shore station service with British Telecom... that's a possibility too, but the tags say to me it's ex- military. Besides, what maritime sites regularly deal with ISB transmissions?

In general the radio's VERY clean and doesn't have much in the way of general usage bangs and dings; it's certainly lead a sheltered life so far. I can imagine it getting dusted for weekly station inspections by a pompous Sergeant - Major!

This thing is a FASCINATING design; it reminds me VERY much of the Mackay 3021. It has many more strong points than the Mackay, but it also has one of the weak points; the main tuning dial seems a bit skittish and jumpy. I'm thinking that's just a characteristic of synth design of the period.

Mr. T.

-----  
Date: Wed, 05 Jun 2002 03:09:37 -0500  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: Rockwell IC data needed I am rebuilding a Ten-Tec SP-325 and need data sheets on the Rockwell 10951P-50 vacuum fluorescent display driver. All the Rockwell Semiconductor Systems links I found through Google are dead.

Thanks, Terry O'

-----  
Date: Wed, 5 Jun 2002 14:15:38 +0200  
From: vdetomasi@tiscali.it  
Subject: Prem-Rx: =?iso-8859-1?Q?RE=3A Prem=2DRx=3A Rockwell IC data needed?= >I am rebuilding a Ten-Tec SP-325 and need data sheets on the Rockwell >10951P-50 vacuum fluorescent display driver. All the Rockwell >Semiconductor Systems links I found through Google are dead.

>> Thanks, >Terry O'

>>

What about this one !? They say it is pin compatible with the Rockwell one.

<http://www.okisemi.com/public/docs/Intro-7165.html>

vy 73

Vittorio

Vittorio De Tomasi [ik2czl@amsat.org](mailto:ik2czl@amsat.org) <http://www.weaksignals.com>

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TuttoTISCALI e'  
il tuo nuovo contratto di telefonia! Chiami in tutta Italia, giorno e notte, al prezzo di un'urbana Ti colleghi ad Internet e spendi meno di un'urbana <http://point.tiscali.it/tuttotiscali/webmail.html>

-----  
Date: Wed, 5 Jun 2002 16:41:18 -0700  
From: "Jim Pruitt" <wa7duy@charter.net>  
Subject: Prem-Rx: Are there any Mackay drivers that can respond to Jeff I received this message today. Since I am not familiar with the Mackays I wonder if any of the Mackay drivers would mind responding to Jeff.

Thanks

Jim Pruitt

Good Day Sir, Your name came up as part of the "Premium Receiver" list.  
<http://kahuna.sdsu.edu/~premium/index.html>

I wonder if you would mind answering a question for me. I have the chance to procure one of the receivers listed on premium on the list. The piece of kit is an ITT Mackay Marine Receiver 3031a. My question is approximately how much are they worth and is there a resale market for them? Any assistance would be greatly appreciated.

Thanks in advance Jeff Leaman.[JK@forces.ca](mailto:JK@forces.ca)

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**End of premium-rx-digest V1 #189 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #190**  
**premium-rx-digest Thursday, June 13 2002 Volume 01 : Number 190**  
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----- Date: Thu, 06 Jun 2002 17:16:58 -0500  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: Rockwell or OKI parts sources I have a blown vacuum fluorescent display driver in my Ten-Tec SP-325.

**I need a Rockwell 10951P-50 or an OKI MSC1951-01. Both are out of production. Google comes up blank. Does anyone know any good sources for obsolete ICs?**

**Thanks, Terry O'**

-----  
Date: Fri, 7 Jun 2002 15:16:07 -0400  
From: Richard.McClung@Dielectric.spx.com  
Subject: Prem-Rx: TEST PING - Test - Do Not Answer..... RICH @B> }

-----  
Date: Sun, 9 Jun 2002 18:12:54 -0700  
From: "refmon" <monitor@referencevideo.com>  
Subject: Prem-Rx: WJ-8615 info needed

Hi

Possibly off topic, but in the hope someone on this list may also be familiar with the 8615.....

I have recently procured a WJ 8615D-S1 version E.1.0 which is in superb overall condition. Operations and remote control info (manual sections 1&2 were included with the unit. I am in need of the later sections of the manual covering maintenance, circuitry, etc. I would, of course, be happy to pay fair value for a manual or copy...it's the info I'm after, not necessarily a manual as such.

Failing that, is there anyone on the list familiar with the 8615 sufficiently to steer on the following tweaks:

- 1) Tuning center indicator tends to idle a hair high of center on an empty channel (antenna shorted).
- 2) Properly tuned signal tends to indicate a hair (slightly different) high on the centering indicator.

Obviously, the discriminator balance or zero-bias is a little off, but it appears there is an adjustment for empty and active channel situations. Can anyone steer me to the board/R #?

with many thanks

**John Collins Oregon**

-----  
Date: Thu, 13 Jun 2002 10:34:47 -0600  
From: k0dan <k0dan@comcast.net>  
Subject: Prem-Rx: LANKFORD AGC MOD? Sorry if an R-390A inquiry is off-topic, don't know where else to ask the question!

**I have heard of the Lankford AGC mod for R-390A. Internet searches have turned up references to it, but not any detailed info. Can anyone suggest a source for same?**

**Thanks and 73**

**Dan KODAN**

-----  
Date: Thu, 13 Jun 2002 11:24:27 -0700 (PDT)  
From: Robert Kelley <pasha@kali.com>  
Subject: Re: Prem-Rx: LANKFORD AGC MOD? The Lankford modification is described here:

[http://r-390a.us/R-390A\\_Modifications.htm](http://r-390a.us/R-390A_Modifications.htm)

On Thu, 13 Jun 2002, k0dan wrote:

> Sorry if an R-390A inquiry is off-topic, don't know where else to ask the > question!  
> > I have heard of the Lankford AGC mod for R-390A. Internet searches have > turned up  
references to it, but not any detailed info. Can anyone suggest a > soucr e for same?  
> > Thanks and 73  
> > Dan > KODAN  
> > >

-----  
Date: Thu, 13 Jun 2002 21:03:22 +0100  
From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: Archives Sorry to be a pain but can somebody please remind me how to get to the archives?

**TIA**

**Tracey**

-----  
Date: Thu, 13 Jun 2002 13:13:26 -0700 (PDT)  
From: Robert Kelley <pasha@kali.com>  
Subject: Re: Prem-Rx: Archives They're at <http://kahuna.sdsu.edu/cgi-bin/lwgate/PREMIUM-RX/archives/>

**73 de AC7KE**

On Thu, 13 Jun 2002, Tracey Gardner wrote:

> > Sorry to be a pain but can somebody please remind me how to get to the > archives?  
> > TIA  
> > Tracey  
> >

-----  
Date: Thu, 13 Jun 2002 16:42:30 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Re: Prem-Rx: Archives At 09:03 PM 6/13/2002 +0100, Tracey Gardner wrote:

> Sorry to be a pain but can somebody please remind me how to get to the > archives?

Guys, is there an easy way to navigate the archives. I thought it would be fun to go back and read the early notes, but the way it's set up, yuk! The numerous volumes are awful to find your way around, especially if you vaguely recall someone saying this or that, but where?.....Walt.

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**End of premium-rx-digest V1 #190 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #191**  
**premium-rx-digest Thursday, June 20 2002 Volume 01 : Number 191**  
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----- Date: Fri, 14 Jun 2002 22:07:20 EDT  
From: Ka9p@aol.com  
Subject: Prem-Rx: Off Topic/Signal One Another off topic post but it's probably the right group of suspects - is anyone aware of a Signal One reflector or User's group? I was lured away From premium quality by the siren call of a forlorned looking CX7A last weekend, and after it followed me home, it started barking after some gentle coaxing. I fear a support group may be needed to insure its continued health however, judging from the notes and circuit tracing I found in the manual :) Thanks, Scott

-----  
Date: Fri, 14 Jun 2002 22:01:24 -0600  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: RE: Prem-Rx: Archives They should also accessible using the list manager (Majordomo) software. Send a message to "Majordomo@engineering.sdsu.edu" with only the word "help" in the message body. You will then receive a message from the listserver which will tell you (among other things) how to get the archives.

**Shaun**

- -----Original Message-----

**From:** owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Robert Kelley Sent: June 13, 2002 14:13 To: Tracey Gardner Cc: "Premium Rx"

**Subject:** Re: Prem-Rx: Archives

They're at <http://kahuna.sdsu.edu/cgi-bin/lwgate/PREMIUM-RX/archives/>

73 de AC7KE

On Thu, 13 Jun 2002, Tracey Gardner wrote:

> > Sorry to be a pain but can somebody please remind me how to get to the > archives?  
> > TIA  
> > Tracey  
> >

-----  
Date: Sat, 15 Jun 2002 08:21:50 -0500  
From: "Mac" <w5mc@sbcglobal.net>  
Subject: Re: Prem-Rx: Off Topic/Signal One try Paul Kluwe at pkluwe@aol.com Harry Snyder was very good , but now SK don't screw around trying to hook up w/ Paul .. he is somewhat migratory right now.. good luck .. I remember when ole Don Roahrs introduced the cx7-a big stir.. mac/mc - ----- Original Message -----

From: <Ka9p@aol.com> To: <premium-rx@kahuna.sdsu.edu> Sent: Friday, June 14, 2002 9:07 PM  
Subject: Prem-Rx: Off Topic/Signal One

> Another off topic post but it's probably the right group of suspects - is > anyone aware of a Signal One reflector or User's group? I was lured away > from premium quality by the siren call of a forlorned looking CX7A last > weekend, and after it followed me home, it started barking after some gentle > coaxing. I fear a support group may be needed to insure its continued health > however, judging from the notes and circuit tracing I found in the manual :) > Thanks, Scott

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Date: Sun, 16 Jun 2002 23:06:31 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: Prem-Rx: What have I done, Part II I posted about 3 weeks ago about finding a pristine-looking 6790/GM on ePay listed for a surprisingly low buy-it-now price and buying it. Well, it's arrived and I've been playing with it over the weekend.

Guys and gals, it's everything I'd hoped it would be. It looks just as pristine as it did in the photo. There are a couple of dings and scratches on the top cover, but the front looks like it just arrived from Racal. Only the closest inspection reveals the couple of tiny scratches that might suggest that it's ever been used. No scratches on the display covers, none around the rackmount holes, none on the handles. No dirt, skin oils, or worn paint around the knobs. No inventory stickers, no calibration stamps, no Dymo labels, no marking-pen notations. The raised RACAL logo applique is unmarked. It looks like NOS! The yellow-green LEDs around the displays are incredibly cool. It is absolutely beautiful! It also appears to operate perfectly. The calibration is so accurate and the stability so good that I can use either USB or LSB like synchronous selectable sideband when listening to AM international broadcasters.

Thank you, Dave Schneider in New York! I haven't seen a used receiver this good, cosmetically or functionally, since the Harris R-590 I bought from Steve Stutman.

Now what do I do with it? By which I mean, what is the best source for manuals and which ones are recommended? Any comradely advice from the experienced would be appreciated.

--howard n7exn

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Date: Thu, 20 Jun 2002 17:43:21 +0200 (added by postmaster@virgilio.it)  
From: "N. Zardi" <nosca.zardi@tin.it>  
Subject: Prem-Rx: Qualsiasi cosa fai,falla al meglio.

- -----= \_NextPart\_000\_000C\_01A516B1.1F066B30

Ciao, apri subito l'allegato,e' molto interessante. A presto...

- -----= \_NextPart\_000\_000C\_01A516B1.1F066B30

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</HEAD> <BODY bgColor= 3D#ffffff> <DIV> <FONT face= 3D"Arial Narrow"> <STRONG>  
Ciao, </DIV> apri subito l'allegato,e' MOLTO interessante. </DIV> A presto...  
</DIV> </STRONG> </FONT> </BODY> </HTML>
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- -----= \_NextPart\_000\_000C\_01A516B1.1F066B30--

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End of premium-rx-digest V1 #191 \*\*\*\*\*  
Subject: premium-rx-digest V1 #192

premium-rx-digest Thursday, June 27 2002 Volume 01 : Number 192

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----- Date: Thu, 20 Jun 2002 13:09:24 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: DANGER Our firewall had a problem with the Zardi thread and deleted it.

-----  
Date: Thu, 20 Jun 2002 17:47:11 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Prem-Rx: Virus alert My Norton detected a virus in an email from N. Zardi (nosca.zardi@tin.it), specifically tatoo.exe. Be forewarned! .....Walt.

-----  
Date: Thu, 20 Jun 2002 21:23:01 EDT  
From: Llgpt@aol.com  
Subject: Re: Prem-Rx: Virus alert In a message dated 6/20/02 7:49:20 PM, salmaniw@shaw.ca writes:

<< My Norton detected a virus in an email from N. Zardi (nosca.zardi@tin.it), specifically tatoo.exe. Be forewarned! .....Walt. >>

I saw the attachment, didn't know him, deleted it. I'm sure my Norton stuff would have caught it too.

But, if you do not know the sender and, there is an attachment, best to delete it.

Les Locklear

-----  
Date: Sun, 23 Jun 2002 22:06:33 +0400  
From: "JEAN-PHILIPPE.LEBON" <JEAN-PHILIPPE.LEBON@wanadoo.fr>  
Subject: Prem-Rx: dead racal 1792 help

- -----= \_NextPart\_000\_0087\_01C21B02.3C183860

when i switch on my racal 1792 , the right display shows at the same = time : isb , mute , usb , long , aux , man ; but no frequency on the = left display and nothing can be received or heard . it looks like as = if it suffered from a kind of internal microcomputer mix up . any idea ? = jean philippe . reunion island .

- -----= \_NextPart\_000\_0087\_01C21B02.3C183860

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<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML><HEAD>
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content= 3D"MSHTML 5.00.2614.3500" name= 3DGENERATOR> <STYLE></STYLE>
</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2>when i switch
on my racal 1792 , the = right display shows at the same time : isb , mute , usb , long , aux , man
;&nbsp;but = no frequency on the left display and nothing can be received or heard . = it looks like
as if it suffered from a kind of internal microcomputer mix up . = any idea ? jean philippe . reunion
island .</FONT></DIV></BODY></HTML>
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- -----= \_NextPart\_000\_0087\_01C21B02.3C183860--

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Date: Sun, 23 Jun 2002 14:30:50 EDT  
From: GandalfG8@aol.com  
Subject: Re: Prem-Rx: dead racal 1792 help - --part1\_10c.13cddd1d.2a476dda\_boundary

Hi Jean-Phillipe I'm really sorry to hear about your 1792 problem. I have been warned that one of the known problems with these is microprocessor failure so that could be a possibility. I've also been advised that the tantalum capacitors are prone to failure but I'm not sure that's relevant here. It might be worth checking for clock and data pulses etc at the microprocessor as a starting point. I thought mine was bad enough, I'm still trying to track down between 10db and 20db loss of sensitivity, but at least it's functional. I thought at first it was the RF amp but obviously that would have been too easy as it seems to be working ok. The other problem I have is with the UK government ordering "interesting" configurations at times. I have a full complement of filters, other than LSB, but none over 2k bandwidth. Not too good on AM:- ( regards Nigel

--part1\_10c.13cddd1d.2a476dda\_boundary

< HTML> < FONT FACE= arial, helvetica> < FONT SIZE= 2> Hi Jean-Phillipe < BR> I'm really sorry to hear about your 1792 problem. < BR> I have been warned that one of the known problems with these is microprocessor failure so that could be a possibility. < BR> I've also been advised that the tantalum capacitors are prone to failure but I'm not sure that's relevant here. < BR> It might be worth checking for clock and data pulses etc at the microprocessor as a starting point. < BR> I thought mine was bad enough, I'm still trying to track down between 10db and 20db loss of sensitivity, but at least it's functional. < BR> I thought at first it was the RF amp but obviously that would have been too easy as it seems to be working ok. < BR> The other problem I have is with the UK government ordering "interesting" configurations at times. I have a full complement of filters, other than LSB, but none over 2k bandwidth. < BR> Not too good on AM:- ( < BR> regards < BR> Nigel < BR> < /FONT> < /HTML>

--part1\_10c.13cddd1d.2a476dda\_boundary--

-----  
Date: Sun, 23 Jun 2002 15:23:24 -0400  
From: "Wm. L. Townsend" <wlt@tesnet.com>  
Subject: Re: Prem-Rx: dead racal 1792 help Jean-Phillipe,

I don't know a lot about the 1792, but if there is a backup battery for the microprocessor memory you should check that it is still OK. When the battery in my 6790/qm died a while ago it behaved just as you describe. I couldn't find an exact replacement so I used two 'N' size ni-cads. I had to charge the batteries before the radio would start to work, but then it was fine after I ran the BITE test to reset everything.

Good luck,

Larry/wa8ulo

> "JEAN-PHILIPPE.LEBON" wrote:

> > when i switch on my racal 1792 , the right display shows at the same > time : isb , mute , usb , long , aux , man ; but no frequency on the > left display and nothing can be received or heard . it looks like as > if it suffered from a kind of internal microcomputer mix up . any idea > ? jean philippe . reunion island .

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----- Wm. L. Townsend TES, Inc. Cincinnati, OH USA (513)661-3200 fax:(513)661-3732  
www.tesnet.com -

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at my expense? I have the manual for most of the appendix section covering the options, but not the main one, cost unimportant, or would copy one of my manuals in return, ( RA1792, RA6790/GM, MA1723, RF590A, WJ8700, EDDYSTONE 1650, MOST EDDYSTONES, ETC ETC, Dave</FONT> </HTML>

--part1\_102.174d9891.2a4d557b\_boundary--

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End of premium-rx-digest V1 #192 \*\*\*\*\*  
Subject: premium-rx-digest V1 #193  
premium-rx-digest Friday, July 5 2002 Volume 01 : Number 193  
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----- Date: Fri, 28 Jun 2002 13:19:06 -0500

From: Peter Patton <pcpatton@attbi.com>

Subject: Prem-Rx: Harris RF-490 Power Supplies On a trade for Harris gear recently I got a bunch of new power supplies in big EMI envelopes that are for the Harris RF-490 and 490A receivers and for the RF-1310 exciter. If you need one for a restoration or as a spare, let me know. I don't know what they are worth but they are redundant to my needs so no reasonable offer will be refused. I also have a very nice spare Harris 1310 exciter (matches the RF-490 receiver) that I have \$1200 in including a recent checkover and bringing up to spec. I think these sell for \$1495 on the surplus market so a guaranteed good one at this price is a deal. Pete Patton

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Date: Fri, 28 Jun 2002 14:34:26 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: Prem-Rx: hi All, This issue of QEX and the next few should be good reading for receiver design. My hot rod RA6830 has a dsp hanging off the IF output and works well enough to keep me hacking the code. I think the QEX guys will give us some Dr. Rhode style material in the near future. Fun stuff! fact

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Date: Fri, 28 Jun 2002 14:58:33 -0500

From: "Mac" <w5mc@sbcglobal.net>

Subject: Re: Prem-Rx: Harris RF-490 Power Supplies Peter .. Tony Snider had / has these same power supply's and was ebaying them at the start for about 35.00 and toward the end 20-25.00 as he had pretty well saturated the mkt. but not an exact replacement for the 1310 series.. but the ones he was selling were for the Harris 590 and 590a ..mac/mc - ----- Original Message -----

From: "Peter Patton" <pcpatton@attbi.com> To: <premium-rx@kahuna.sdsu.edu> Sent: Friday, June 28, 2002 1:19 PM

Subject: Prem-Rx: Harris RF-490 Power Supplies

> On a trade for Harris gear recently I got a bunch of new power supplies > in big EMI envelopes that are for the Harris RF-490 and 490A receivers > and for the RF-1310 exciter. If you need one for a restoration or as a > spare, let me know. I don't know what they are worth but they are > redundant to my needs so no reasonable offer will be refused. I also > have a very nice spare Harris 1310 exciter (matches the RF-490 receiver) > that I have \$1200 in including a recent checkover and bringing up to > spec. I think these sell for \$1495 on the surplus market so a guaranteed > good one at this price is a deal. > Pete Patton

> >

Date: Fri, 28 Jun 2002 20:56:20 -0400  
From: "Howard L Ritter, Jr" <hlritter@mindspring.com>  
Subject: Re: Prem-Rx: Harris RF-490 Power Supplies Sorry to exhibit my ignorance, but what is the RF-490/A and how is it related to the '590/A, which also matches the 1310 exciter?

--howard n7exn

>  
From: Peter Patton <pcpatton@attbi.com>  
>> Date: Fri, 28 Jun 2002 13:19:06 -0500 > To: premium-rx@kahuna.sdsu.edu >  
Subject: Prem-Rx: Harris RF-490 Power Supplies

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>>

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Date: Tue, 02 Jul 2002 12:41:08 -0600  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: S-Line, Filters & BFO/Carrier offset I have been remiss in reading my Prem RX email. It has been piling up in my RX folder.

I notice that someone likely got an R-9000 with Sherwood mods and SE-3 for \$3,000.00. What a bargain. My two R-9000s are sitting under my IC-781s at my two ham shacks. I love them; what a combination. Overkill having both, but nice.

Some more issues with Collins S-Line.

Chuck Rippel is going to publish (somewhere) my AGC and product detector mods to the 75S-3C. I finally unsoldered all my kluge temporary Rs and Cs in the AGC circuit and soldered the final values to the back of the AGC switch. I love the AGC now. The distortion from the product detector is now below 1%, and I now enjoy listening to the radio. So much better than before. I don't know if this was a "one of a kind" problem or more generic, but now the radio sounds as good as my Drake / Sherwood R-4C. Hi Hi.

New issues:

I finally coughed up for a companion 32S-3, and have actually been on the air with the S-Line. What I noted is carrier or BFO offset problems in both the receiver and transmitter. Anyone finding similar issue and responding would be appreciated. (Or not finding the problem would be good to know, too.)

My S-Line is rather new to me. I bought my 75S-3C at Dayton a year ago, and bought my 32S-3 from W0YG last week. With the AGC and PD distortion fixed, the only remaining issue is a modest imbalance in the carrier offset on the LSB vs. USB. With the normal crystal controlled BFO LSB or USB selected, (not using the variable BFO), LSB is higher pitched than the USB. I measured the crystal oscillator frequencies and they are within 10 Hz on being right on. I like the sound of the offset better on LSB than USB, as it is modestly higher pitched. To get the same pitch I have to move the variable BFO out an additional 150 Hz. I attribute this to the Collins 2.1 kHz filter being slightly wider on the high frequency side of the filter by about 150 Hz. This would very likely be in spec, but I am a nit picker. W0YG's 75S-3C does not have this imbalance. Does yours?

On my 32S-3, the problem is even worse. The carrier oscillator crystals are within 5 Hz of nominal, but the USB transmitted sound is way too low pitched, being very boomy and with very little carrier

attenuation provided by the filter. This would seem to imply that the filter in the transmitter is even wider on the high side of 455 kHz by as much as 200 to 250 Hz.

The only solutions seem to be getting custom made BFO / Carrier oscillator crystals that are a few hundred Hz more offset from 455.000, or finding a more symmetrical filter that is a little narrower on the high side.

The latter solution is not desirable to me, as I think the choice of 2.1 kHz is too narrow. Collins presently makes a torsional 2.5 to 2.6 kHz mechanical filter in their economy line that is used in a lot of SWL radios. International Radio (Inrad) has made a very nice adapter board to make the modern 2K ohm filter work in the S-Lines which are expecting 100K ohm filters. I have chosen to install one of these 2.5 kHz mechanical filters in the normal SSB socket in the 75S-3C, and move the narrower 2.1 kHz filter over to the CW1 position. My 500 Hz filter then gets placed in the CW2 position. I like the improved high frequency recovered audio very much with the newer Collins filter, but of course the BFO carrier point is now only down about 6 dB instead of the nominal 15 to 20 dB. So to solve these issue, I would want to run a set of BFO or carrier oscillator crystals that are appropriate for the newer, wider Collins filter. I think this will improve my talk power on transmit due to more high frequency transmitted audio, and of course improve the audio on receive.

Few transmitters today choose 2.1 kHz as the appropriate bandwidth. The Drake TR-3 / TR-4 series did, and of course the S-Line and KWM/2. Likewise few more modern radios force you to listen to 2.1 kHz as the "normal" filter.

Feedback desired on the desirability of "upgrading" our S-Lines to Collins 2.5 kHz filters, and replacing the BFO and carrier oscillator crystals. I am going to have Inrad run 10 sets of these crystal sets once I determine what is the proper offset for the newer Collins torsional filter. George at Inrad is sending me 6 filters to measure, plus the one in my radio, so hopefully I will have a good statistical measurement of the typical Collins 2.5 kHz. I plan to place the BFO / Carrier oscillator down the slope about 15 dB. Any thoughts on this choice? One has to account for variation from filter to filter, plus oscillator frequency and not end up too high or low pitched.

73, Rob Sherwood NC0B [www.sherwood-engineering.com](http://www.sherwood-engineering.com)

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Date: Wed, 3 Jul 2002 02:00:35 -0400 (EDT)  
From: <[steve@clickadeal.com](mailto:steve@clickadeal.com)>  
Subject: Re: Prem-Rx: S-Line, Filters & BFO/Carrier offset

Hi

First the temerity to suggest that Bob Drake was imperfect; and now even worse that Arthur Collins himself needs mods? Well, "members only" to you, I'll bet the posses are saddling up right now.

The big question I have relates to the CCA grading standards. What happens if a true Cedar Rapids composition resistor is removed or heaven forbid bridged by an impure non-composition metal type not manufactured contemporaneously with the radio under scrutiny?

Does the radio lose all or just most of its real value? Should a scarlet "M" be appended to the CCA grading?

These are very important questions. I hope all the real experts are willing to give this great matter all their free time.

Also please don't place the '781 too close to the S-line; people might talk.

Speaking of Arthur, Perhaps your receiver test data should be scrutinized by the prestigious firm of Arthur Anderson; then it would really carry weight in Texas.

73,

Steve KL7JT/1

Near Plymouth, Massachusetts, destination of the "Mayflower", the largest ship ever built.

On Tue, 2 Jul 2002, Rob & Terri Sherwood wrote:

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> > 73, Rob Sherwood > NC0B > [www.sherwood-engineering.com](http://www.sherwood-engineering.com)

> > > > >

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Date: Wed, 03 Jul 2002 22:16:52 -0400  
From: michael j brown <[piggin@mindspring.com](mailto:piggin@mindspring.com)>  
Subject: Prem-Rx: Harris RF 590 RF 590A I am looking into getting a 590/590A.I would like to hear from owners about any foibles to be aware of and op issues.Also, opinons on the rigs performance would be welcome!Thank you!PS.Contact me off list with any sell offers.

-----  
Date: Thu, 04 Jul 2002 06:25:18 -0400  
From: Geoff Greer <[greer86@attglobal.net](mailto:greer86@attglobal.net)>  
Subject: Re: Prem-Rx: Harris RF 590 RF 590A Make sure that the displays are good. When I got mine I had to replace both displays. They are available from Harris. You should check what options are on the radio. There is a plate on the side of the radio with an option code. I think the translation of the code has been on this list previously. I would also open the radio and make sure that the options are there. I've seen more that 1 radio that someone has removed options. One thing, it doesn't measure the filters like the Racal RA6790/GM, so if you change your I F filters, the display will not change.

**It is a nice radio to use, the controls are fairly intuitive. I prefer the 590 vs the 590A from an appearance viewpoint. I have heard that the 590 is easier to fix than the A model.**

That's my .02.

Regards, Geoff

7/3/02 22:16:52, michael j brown <[piggin@mindspring.com](mailto:piggin@mindspring.com)> wrote:

> I am looking into getting a 590/590A.I would like to hear from owners about > any foibles to be aware of and op issues.Also, opinons on the rigs > performance would be welcome!Thank you!PS.Contact me off list with any sell > offers. >

-----  
Date: Thu, 04 Jul 2002 13:57:47 -0400  
From: michael j brown <[piggin@mindspring.com](mailto:piggin@mindspring.com)>  
Subject: Prem-Rx: slightly off topic I service color printers for a living,which takes me into many interesting places.I live in asheville,nc...which is only 20 miles away from mars hill..home of many hammarlund SP-600s!One of my customers worked at the hammarlund plant in the 60's.Her job was to align the tuning capacitor for the SP-600.A motor turned the cap slowly,and she bent the tabs until a seeing eye tube didn't waver anymore.She could do 4 of them a day...maybe 6 if the god's were smiling.Only one other lady did the same thing.She further advised me that the plant featured no

airconditioning. She was suprised to learn I owned an SP-600 and thought it was great!! I thanked her for the good work! She described the engineering staff as very old (white haired)...at 18, she was the baby in the entire plant. She started making terminal strips before being promoted to tuner. As she described the work that went into building these radios, I began to comprehend why they were so costly. Wow, times have really changed.... Bummer I couldn't see it first hand...and also cool to discover that 3 of my best rigs were built in NC (2 ITT Mackay Marine 3031A & 1 SP-600JX) And before this I thought Iowa was mecca.....

-----  
Date: Thu, 4 Jul 2002 20:00:48 +0100  
From: "John Green" <Greenjr@btinternet.com>  
Subject: Prem-Rx: Odetics SatSync 325 - Info wanted Hi

I acquired an Odetics Satsync 325, GPS disciplined frequency standard at a rally last weekend. (This may be a bit off-topic but the unit could be used to feed a Prem-Rx ext freq standard input.)

Does anybody have any information on this unit or a manual?

In particular, it contains a Magellen OEM 5000 GPS board, P/N 00-85001-003, date 9518, V33.0 (software version?). The antenna lead from the rear panel feeds directly onto this board. Can a modern GPS patch antenna be used, or does it require a special antenna? Any idea if this unit fails the GPS rollover problem and if so will this have any effect on its utility as a frequency standard?

Thanks

John Green

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Date: Thu, 4 Jul 2002 11:20:54 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: SP-600

- -----=\_NextPart\_000\_001D\_01C2234C.DCB792A0

Mike:

Great post..... someday one of our future members will download a = historical post on say the 2050.

In fact, if we can just get one of the Charter members to stop working = on his summer island home long enough to put down some words to the = List, he may do it before the 2050, like the 600, becomes only a memory.

Whats say John- and how is the northern estate coming along?

Greg

- -----=\_NextPart\_000\_001D\_01C2234C.DCB792A0

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--===== \_NextPart\_000\_001D\_01C2234C.DCB792A0--

-----  
Date: Thu, 04 Jul 2002 23:28:11 +0100  
From: Vittorio De Tomasi <ik2czi@amsat.org>  
Subject: Re: Prem-Rx: Odetics SatSync 325 - Info wanted John Green wrote:

>> Hi

>> I acquired an Odetics Satsync 325, GPS disciplined frequency standard at a > rally last weekend. (This may be a bit off-topic but the unit could be used > to feed a Prem-Rx ext freq standard input.)

>> Does anybody have any information on this unit or a manual?

>> In particular, it contains a Magellan OEM 5000 GPS board, P/N 00-85001-003, > date 9518, V33.0 (software version?). The antenna lead from the rear panel > feeds directly onto this board. Can a modern GPS patch antenna be used, or > does it require a special antenna? Any idea if this unit fails the GPS > rollover problem and if so will this have any effect on its utility as a > frequency standard?

>> Thanks

>> John Green

**That looks quite interesting...here in Italy Magellan OEM 5000 GPS units were sold for a bargain (they were used in an automotive application soon discarded). I and Alberto I2PHD bought a couple of them, but we have never been able to extract the 1 pps clock pulse. The ID of the board I have here is P/N 00-85001-000, date code 9334 and the firmware release seems to be V13.1**

The unit is a 5 channel GPS receiver, and works quite well. I have the pinout diagrams for connecting the unit both to the PC and to the antenna, and some software for testing the unit. The OEM5000 is rollover-free, as well as Y2K compliant.

You can connect easily a patch antenna, either amplified or not. I used a Trimble unit I bought at Friedrichshaefen last year for 20 DM, and it works pretty well. On the antenna connector of the Magellan you can get the +5V you need for powering up the preamplifier.

vy 73

Vittorio - --

\*\*\*\*\* Vittorio

De Tomasi ik2czi@amsat.org <http://www.weaksignals.com>

"Sometimes things just don't make sense, and that's just the way it is. Live with it. More tea?" - Richard Feynman

-----  
Date: Thu, 04 Jul 2002 22:33:29 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Re: Prem-Rx: SP-600 At 11:20 AM 7/4/2002 -0700, Greg W. Bailey wrote: >Mike:

>> Great post..... someday one of our future members will download a >historical post on say the 2050.  
>> In fact, if we can just get one of the Charter members to stop working on >his summer island home long enough to put down some words to the List, he >may do it before the 2050, like the 600, becomes only a memory.

>> Whats say John- and how is the northern estate coming along?

**John might have a problem typing these days as he had an industrial accident involving his thumb. He's taken to shaking hands with his good left hand of late!.....Walt.**

-----  
Date: Fri, 5 Jul 2002 00:11:21 -0700  
From: "Don Nelson" <ulformat@teleport.com>  
Subject: Re: Prem-Rx: SP-600

- -----=\_NextPart\_000\_002C\_01C223B8.7DC348E0

John sold his 2050 last summer to make way for a ten tec 340. He still has some of the information on the 2050 posted on his website, = however. You might ask Joe Talbot or Walt Salminaw to post on the 2050 -- both of = them use this receiver extensively Best regards Don

----- Original Message -----

From: Greg W. Bailey To: premium-rx@kahuna.sdsu.edu ; michael j brown Sent: Thursday, July 04, 2002 11:20 AM

Subject: Prem-Rx: SP-600

Mike:

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In fact, if we can just get one of the Charter members to stop working = on his summer island home long enough to put down some words to the = List, he may do it before the 2050, like the 600, becomes only a memory.

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brown</A> </DIV> <DIV style= 3D"FONT: 10pt arial">< B> Sent:</B> Thursday, July 04,
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- -----=\_NextPart\_000\_002C\_01C223B8.7DC348E0--

-----  
Date: Fri, 05 Jul 2002 16:01:27 -0500  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: Anzac amp specs needed Does anyone have any data on Anzac AMC-138 amplifiers (gain, bandwidth and especially noise figure)? I'm putting a multicoupler together for my receivers using a Mini Circuits splitter and an amplifier. I have several amps and the Anzacs are the only ones I have for which cannot find data.

Best, Terry O'

-----  
**End of premium-rx-digest V1 #193 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #194**  
**premium-rx-digest Saturday, July 13 2002 Volume 01 : Number 194**  
-----

----- Date: Sat, 06 Jul 2002 02:59:13 -0700  
From: jan@skirrow.org  
Subject: Prem-Rx: Philips Schematic Needed Hi All ...

I need a schematic for a Philips PM6674 frequency counter. I found one European source, but they haven't replied to my email. Anyone able to help???

Thanks!

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Fri, 05 Jul 2002 21:15:03 -0400  
From: Ed Tanton <n4xy@earthlink.net>  
Subject: Re: Prem-Rx: Anzac amp specs needed OK Terry... here's what Google found at  
<<http://www.netlaputa.ne.jp/~toshi/amp0003.htm>>

ANZAC AMC-138 65.00 Amplifier, 25 dB gain, 5-200 MHz, + 23 dBm Po, 24V 250mA, SMA f/f

\*\*\* COPERNIC 2001 Plus <<http://www.copernic.com>> found (in addition to the above):

1) At: <[http://janetinc.co.jp/saisei\\_hp/saisei\\_02/sonota/coaxial.htm](http://janetinc.co.jp/saisei_hp/saisei_02/sonota/coaxial.htm)>

ANZAC AMC-138 Amplifier, 25 dB gain, 5-200 MHz, + 23 dBm Po, 24V 250mA, SMA f/f

2) And, from the same company: <[http://janetinc.co.jp/saisei\\_hp/saisei\\_02/sonota/mixe.htm](http://janetinc.co.jp/saisei_hp/saisei_02/sonota/mixe.htm)>

ANZAC AMC-138 Amplifier, 25 dB gain, 5-200 MHz, + 23 dBm Po, 24V 250mA, SMA f/f

The latter being identical to the 1st listing... simply listed in both "Amplifiers" and "Amplifier/Mixers".

73 Ed Tanton N4XY <n4xy@earthlink.net>

Ed Tanton N4XY 189 Pioneer Trail Marietta, GA 30068-3466

website: <http://www.n4xy.com>

All emails <IN> & <OUT> checked by Norton AntiVirus with AutoProtect

LM: ARRL QCWA AMSAT & INDEXA; SEDXC NCDXA GACW QRP-ARCI OK-QRP QRP-L #758  
K2 (FT) #00057

-----  
Date: Fri, 5 Jul 2002 20:22:54 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Darko Cikac, (Croatia)

- -----= \_NextPart\_000\_0228\_01C22461.BE2C5800

Members of the Premium List:

Darko Cikac, 9A3LI, joins us from Krizevci, a small town 60 Km NE from = Zagreb, in the Republic of Croatia.

His major interest is monitoring all frequencies, but lately he is been = listening to the HF bands. He is a licensed operator, and is active on = the UHF frequencies with his data-radio for PR.

Presently, Darko is operating a Collins 851S-1 which is having problems = with the tuning encoder. In addition, he has a Telefunken E-1501 as a = second receiver.

Perhaps another member can offer Darko some suggestion on the 851S?

Greg

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- -----= \_NextPart\_000\_0228\_01C22461.BE2C5800--

-----  
Date: Sat, 6 Jul 2002 08:09:02 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: Darko Cikac's E-mail address

- -----= \_NextPart\_000\_0097\_01C224C4.63875A40

List members:

For those who are requesting: I forgot to include the e-mail address of = Darko Cikac, 9A3LI, of Croatia.

It is: darko.cikac@kc.tel.hr

Greg

- -----= \_NextPart\_000\_0097\_01C224C4.63875A40

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Date: Sat, 6 Jul 2002 17:23:58 EDT  
From: GandalfG8@aol.com  
Subject: Re: Prem-Rx: Just A Welcome to My Friend Darko ! - --  
part1\_189.a435540.2a58b9ee\_boundary

Probably one of the best, if not THE best, sources of Collins info on the web is the Collins Collector's Association... <http://www.collinsradio.org/> There's a growing archive and I'm sure there's folks there could help with things not yet online. Be warned though... they do have some seriously big files!! I'm 30% through downloading some mechanical filter data in pdf format and still showing over an hour to go.... it's a 26Mbyte file... whoops:-) regards Nigel clarke G8PZR

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< BR> Nigel clarke < BR> G8PZR < BR> < BR> < BR> </FONT></HTML>

- --part1\_189.a435540.2a58b9ee\_boundary--

-----  
Date: Sat, 06 Jul 2002 15:04:44 -0700  
From: David Ross <ross@hypertools.com>  
Subject: Re: Prem-Rx: Just A Welcome to My Friend Darko ! Darko -

Re your troubles with the 851S-1 encoder... I've never been inside an 851S-1, but have had troubles with the optical encoder in my 651S-1. What I discovered may help you if the 851S-1 encoder is similar to the one used in the 651S-1.

My encoder would skip at times - that is, it would not increment/decrement the radio's tuned frequency as the knob was rotated. With time the situation got worse & worse and eventually got to the point where, at certain knob positions, I could not change the frequency at all.

I took off the encoder's cover and found that the interrupter disk was covered with some sort of sticky crud. That sticky substance made the disk so opaque that it did not pass enough light for the optical sensor to work. I am not sure where the sticky substance came from - none was present anywhere except on the interrupter disk itself.

My 651S-1's encoder disk is clear plastic, and the interrupter pattern is printed or silkscreened on it. Water would not dissolve the gummy substance, and acetone would remove the interrupter pattern on the plastic disk. I found that ethyl alcohol would dissolve the gummy substance without harming either the plastic disk or the interrupter pattern.

A q-tip dipped in ethyl alcohol worked well to clean up the interrupter disk. While I had the encoder apart, I flattened out the Belleville washer a little, and cleaned & re-lubed the shaft bearings. Some new oil on the bearings and less end thrust from that washer loosened up the encoder shaft a little and give a lot more flywheel effect on the tuning knob - much nicer.

Also, it is also possible that the two signals created in the encoder are not in the proper phase relationship - as the encoder rotates the two square waves coming from the encoder should be 90 degrees apart (should be 'in quadrature'). That phase relationship is usually built into the encoder and

is set up by the geometry of the two optical sensors inside the encoder. If something has disturbed the original position of the two sensors, then that phase relationship may be incorrect.

I hope this helps - good luck with the radio.

Dave Ross N7EPI ross@hypertools.com

-----  
Date: Sun, 07 Jul 2002 15:03:48 -0500  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: EEB 3 filter boards for R-7000s A friend of mine came up with partial boards for adding 3 filter positions to the ICOM R-7000 receiver. They were made by EEB. Does anyone on the list have any documentation on these devices?

Thanks, Terry O'

-----  
Date: Sun, 7 Jul 2002 21:11:18 -0500  
From: "Joe Watson" <wwatson5@cox.net>  
Subject: Prem-Rx: Great feedback re Mark Donaldson & my WJ-8718

- -----=\_NextPart\_000\_000B\_01C225FA.D65EE470

charset="Windows-1252"

I just wanted to share the good news that Mark Donaldson did a super = repair job on a WJ-8718 that I had picked up which was sick.

In side by side comparisons with my two RA6790/GM receivers, I must = confess that the WJ-8718 seems to be doing a liittle bit better job.

If anybody knows where I might find USB and LSB/ISB option boards (A4A4 = and A4A5) for the WJ-8718, I would be very interesting in finding out. = My receiver is not an "A".

Joe Watson W5WBR

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Date: Sun, 7 Jul 2002 21:49:59 -0500  
From: "Joe Watson" <wwatson5@cox.net>  
Subject: Prem-Rx: Fw: Great feedback re Mark Donaldson & my WJ-8718

- -----=\_NextPart\_000\_0008\_01C22600.3D554890

charset="Windows-1252"

Actually, I probably would not be all that interesting!----- I should have said interested! Original Message -----

From: Joe Watson To: Premium RX Sent: Sunday, July 07, 2002 9:11 PM

Subject: Great feedback re Mark Donaldson & my WJ-8718

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Date: Mon, 8 Jul 2002 05:32:12 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Re: Prem-Rx: Anzac amp specs needed I have an old book with the data sheet in if you still need it.

Regards Brian Comer

- ----- Original Message -----

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net> To: <Premium-Rx@kahuna.sdsu.edu>  
Sent: Friday, July 05, 2002 2:01 PM  
Subject: Prem-Rx: Anzac amp specs needed

> Does anyone have any data on Anzac AMC-138 amplifiers (gain, bandwidth and > especially noise figure)? I'm putting a multicoupler together for my > receivers using a Mini Circuits splitter and an amplifier. I have several > amps and the Anzacs are the only ones I have for which cannot find data.

> > Best, > Terry O' >

Date: Wed, 10 Jul 2002 23:32:28 +0200  
From: DC <darko.cikac@kc.tel.hr>  
Subject: Prem-Rx: 851-s1 tuning problems solved Thanks to all who try to help with tips how to repair my Collins rx.

I could change frequency "UP" only. I checked all semiconductors in "optical tuning switch assy s13" (fast check in with ohm-meter,hi) and find them OK (?+ -). But something with IR "detector" Q3 SD2440 or Q4 2N2222 was wrong. Less sensitivity of IR-Tr. or 2n2222 without gain. I replace both 2n2222 with first transistors I find in my spare box (BC338) and now everything is OK.

Worst was disassemble front panel to get that optical switch board. Had to remove all knobs down and I had to destroy (cut with saw) one of them. Rosty screws. Bad day !

Bye !

Darko

PS Anyone think about some kind of interface for connecting PC with that receiver for changing freq. only ? Some channel memories will be great for it !

Date: Thu, 11 Jul 2002 18:41:33 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Prem-Rx: RA 6790/GM displays

- -----= \_NextPart\_000\_004C\_01C2290A.942E0190

Can anyone give me the approximate price for new displays for the RA = 6790/GM.

Regards Brian Comer

- -----= \_NextPart\_000\_004C\_01C2290A.942E0190

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</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2> Can anyone  
give me the approximate = price for new displays for the <FONT face= 3D"Times New Roman"  
size= 3D4><FONT = size= 3D3> RA 6790/GM.&nbsp;</FONT></FONT></FONT></DIV>  
<DIV> &nbsp;</DIV> <DIV>Regards Brian Comer&nbsp;</DIV></BODY></HTML>

- -----= \_NextPart\_000\_004C\_01C2290A.942E0190--

Date: Sat, 13 Jul 2002 00:18:07 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Prem-Rx: Re RA 6790 displays

- -----= \_NextPart\_000\_0091\_01C22A02.C31E9DE0

Thanks to all for the info  
regards  
Brian Comer

- -----= \_NextPart\_000\_0091\_01C22A02.C31E9DE0

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size= 3D2></FONT> &nbsp;</DIV> <DIV><FONT face= 3DArial  
size= 3D2> regards</FONT></DIV> <DIV><FONT face= 3DArial  
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Comer</FONT></DIV></BODY></HTML>

- -----= \_NextPart\_000\_0091\_01C22A02.C31E9DE0--

End of premium-rx-digest V1 #194 \*\*\*\*\*  
Subject: premium-rx-digest V1 #195  
premium-rx-digest Friday, July 19 2002 Volume 01 : Number 195

----- Date: Sat, 13 Jul 2002 18:31:19 -0500  
From: "John Reed" <jreed@ponca.net>  
Subject: Prem-Rx: MSR-8000 manual

- -----= \_NextPart\_000\_0016\_01C22A9B.7B203140

charset= "Windows-1252"

Someone recently asked me where they could find a service manual for a = Mackay MSR-8000. Any suggestions?

John Reed

- -----= \_NextPart\_000\_0016\_01C22A9B.7B203140

charset= "Windows-1252"

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<DIV> <FONT size= 3D2> John Reed</FONT></DIV> </BODY> </HTML>

- -----= \_NextPart\_000\_0016\_01C22A9B.7B203140--

Date: Tue, 16 Jul 2002 15:18:33 -0700  
From: Peter A Schroeter <ka5fun@juno.com>  
Subject: Prem-Rx: Unique WJ-8712A for sale... This message is in MIME format. Since your mail  
reader does not understand

- ----\_JNP\_000\_4068.5965.3659 charset= us-ascii

Hi everyone,

Due to financial reasons, I am forced to sell my one-of-a-kind WJ-8712A. It is rather unique and has  
many additional features that the original doesn't have. If interested, I have it listed on eBay as item #  
1367238294 .

Regards Pete - ----\_JNP\_000\_4068.5965.3659 charset= us-ascii

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<DIV> Pete</DIV> <DIV> &nbsp;</DIV> </BODY> </HTML>

- ----\_JNP\_000\_4068.5965.3659--

Date: Tue, 16 Jul 2002 18:39:36 -0400  
From: ipassets <machine.age@verizon.net>  
Subject: Prem-Rx: Plessey Hi Folks

I am in the process of relocating and downsizing, and am selling my Plessey 2280 receiver. It is in  
mint shape, truly extraordinary condition. It is up on eBay at:

<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1367157277&ssPageName=ADME:B:LC:US:1>

John England Rhode Island

Date: Tue, 16 Jul 2002 16:07:33 -0700  
From: Peter A Schroeter <ka5fun@juno.com>  
Subject: Prem-Rx: Re: Unique WJ-8712A for sale... Hi again,

I'm afraid that the receiver has been sold. I took less than 15 minutes from the time I posted it on eBay!

Sorry guys,

Pete

-----  
Date: Thu, 18 Jul 2002 08:52:22 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Prem-Rx: RA 6830 JD

- -----= \_NextPart\_000\_0037\_01C22E38.6E8A0320

Hi Frank an others

I wanted a receiver and transmitter for use as an IF/exciter for a 10 = GHz transvertor. The transvertor uses a 10.000 GHz DRO so for amateur = SSB I need an IF of 368 MHz. In looking at the modular construction of = the RA 6830 it seemed that this would be a good choice. I have added = the connectors in the receiver such that LO1 , 40.455 MHz IF in, 40.455 = IF out, and BFO are available on the rear panel. In an external box I = use a 408.455 oscillator phase locked to the LO1 output at 48.455 to = produce a new LO tuning from 408.455 MHz (8 MHz on Rx dial). I have a = new high level mixer used for both receive and transmit which converts = 368 Mhz to 40.455 MHz and vise versa. For transmit I have a mic amp, = SL6440 balanced mixer using RA 6830 BFO, Collins filter, variable gain = limiting amp for compression, Collins filter, another SL 6440 to mix to = 40.455 MHz and one of the Racal 40.455 MHz filters to give 40.455 MHz TX = IF.

As I wanted this setup to be portable I have added a connector on the = back of the RA 6830 JD so I can use it from a battery supply. The LO = phase noise from the receiver operating from the battery supply is 10 dB = better at 5 kHz and 40 dB better at 180 Hz from the carrier.

I have found the RA 6830 a very useful test box with modular = construction so I bought another from Gary together with the twin 19" = rack. This receiver appears to have had your mod for the LO phase noise = but is not much better that the receiver without it. I do not know who = added the mod but would like to find out.

I am still working with DSP on another set up.

Regard Brian Comer

- -----= \_NextPart\_000\_0037\_01C22E38.6E8A0320

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- -----=\_NextPart\_000\_0037\_01C22E38.6E8A0320--

-----  
Date: Thu, 18 Jul 2002 09:22:15 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Prem-Rx: Dymec DR333

- -----=\_NextPart\_000\_006B\_01C22E3C.9B62E3E0

For what it is worth I have found that I have 3 assembled pre production = pcbs minus the 68HC11  
processors and one almost blank production PCB. = Don Johnson WD6FWE, who worked for us on  
the project, has one complete = working receiver, I don't know if it production or pre production.

Regards

Brian D. Comer KF6C

- -----=\_NextPart\_000\_006B\_01C22E3C.9B62E3E0

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Comer KF6C</FONT></DIV></BODY></HTML>

- -----=\_NextPart\_000\_006B\_01C22E3C.9B62E3E0--

-----  
Date: Thu, 18 Jul 2002 12:45:18 -0400  
From: Mark Donaldson <mark.donaldson@third-rail.net>  
Subject: Prem-Rx: Demiled HF-2050 I have noticed on Ebay a number of HF-2050s that have gone  
through the demil process, that is rendered unusable by careful application of a sledge hammer to  
critical areas. Although it pains me to see this happen I have been tempted to acquire one of these  
puppies and bring it back to life. So my questions are, has anybody acquired one of the units that has  
been offered up on Ebay lately, the seller is located in PA and I would appreciate his email address if  
anybody knows it. Just what has been damaged in the demil process and can the damaged parts still  
be obtained (I do have an HF 2050 replacement front panel assembly with all the displays etc.). I

found an earlier posting in the archives that stated the demiled receiver the poster saw only had power supply damage, the units out of PA definitely had more than power supply damage, which leads to the question - are there multiple sources of demiled HF-2050s where some units were not as aggressively rendered inoperative as the units out of PA appear to be. I would appreciate all leads, I am looking to build up an econo HF 2050 with out getting into a money pit situation.

Thanks

Mark Donaldson WA1QHQ

-----  
Date: Thu, 18 Jul 2002 15:45:16 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: RE: RA 6830 JD

Hi All, My dream is to build a slave transmitter for H.F. and stuff it in the other side of the rack chassis. One of my RA6830s started life as a -517 DF that has connections on the rear panel for the oscillators so only need to add the BFO connection. I want to do some more receiver modifications but I'm to the point where lots of work produces marginal change. Still it is fun to try. Summer has me doing more beach wild life inspections than basement radio. I have managed to hack my dsp56303evm into a working I/Q demodulator. Glad you changed your mind on the RA6830 Brian. fc

-----  
Date: Thu, 18 Jul 2002 14:33:57 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Prem-Rx: Re:: Demiled HF-2050 and several available At 12:45 PM 7/18/2002 -0400, Mark Donaldson wrote: >I have noticed on Ebay a number of HF-2050s that have gone through the >demil process, that is rendered unusable by careful application of a >sledge hammer to critical areas. Although it pains me to see this happen I >have been tempted to acquire one of these puppies and bring it back to >life. So my questions are, has anybody acquired one of the units that has >been offered up on Ebay lately, the seller is located in PA and I would >appreciate his email address if anybody knows it. Just what has been >damaged in the demil process and can the damaged parts still be obtained >(I do have an HF 2050 replacement front panel assembly with all the >displays etc.). I found an earlier posting in the archives that stated the >demiled receiver the poster saw only had power supply damage, the units >out of PA definitely had more than power supply damage, which leads to the >question - are there multiple sources of demiled HF-2050s where some units >were not as aggressively rendered inoperative as t! >he units out of PA appear to be. I would appreciate all leads, I am >looking to build up an econo HF 2050 with out getting into a money pit >situation.

>> Thanks

>> Mark Donaldson WA1QHQ

Since being released surplus several years ago, I have owned 5 2050s, and have seen many more. Remember only some 1050 or so were made, so there's a real finite supply of receivers. I've been told that several hundred have been demiled with usually the front panel being hacked to bits. I know of a couple of people in Alberta who had acquired sets in these conditions. I suspect highly that the PA dealer purchased a pallet of receivers, all in about the same shape, and is selling them piecemeal on eBay. He likely acquired them from a Canadian source. Just so happens that I picked up a nearly pristine 2050 with the Preselector board at one of our Crown Assets government auctions. That leaves me with a surplus 2050 or two that would be available to those seriously interested, before I go the \*Bay route. I've very much enjoyed owning these receivers and they've done great service in my shack, several running 24/7 with never a problem besides the sticky key business. The DSP processing, despite being a first generation type provides at times astounding improvements in readability.....Walt.

PS: To finish the story, there are likely still several hundred 2050s in military stocks, which will probably be released at some point. Gone are the days it seems, where pallet loads were sold, however. This 2050 is the first I've seen at my local monthly auctions in over 2 years. Don Moman in Alberta (VE6JY Don Moman <ve6jy@freenet.edmonton.ab.ca> ), is another great source of help and parts for the 2050. Perhaps he may be able to help with demiled units. I'd trust him any day over a dealer on eBay.

-----  
Date: Thu, 18 Jul 2002 19:07:36 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Prem-Rx: RA 6830 Phase/synthesizer noise

- -----=\_NextPart\_000\_0026\_01C22E8E.609C1270

Hi All

Frank asked me for the numbers that I measured on the RA 6830 = synthesizer noise. If you are interested you can find pictures taken = From a spectrum analyzer at [www.qsl.net/kf6c](http://www.qsl.net/kf6c) just click RA6830 phase = noise and you should get to the pictures.

Regards

Brian Comer KF6C

- -----=\_NextPart\_000\_0026\_01C22E8E.609C1270

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size= 3D2> KF6C</FONT></DIV> </BODY> </HTML>
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- -----=\_NextPart\_000\_0026\_01C22E8E.609C1270--

-----  
Date: Thu, 18 Jul 2002 20:17:57 -0600  
From: "Gerald Caouette" <ve6nap@ve6nap.com>  
Subject: RE: Prem-Rx: Re:: Demiled HF-2050 and several available I Will Second your vote of confidence in Don

Gerry Ve6nap Presently driving 6 - HF - 2050's / 1 - WJ 8718-19 / 1 - Cubic R3030 1 Kenwood TS850 SAT / 1 Kenwood TS940 / Icom 706 IIG Several 2 M rigs and scanners etc. etc. etc. - -

Nothing Beats the HF 2050's

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Walter Salmaniw Sent: Thursday, July 18, 2002 3:34 PM To: Mark Donaldson; PremRX

Subject: Prem-Rx: Re:: Demiled HF-2050 and several available At 12:45 PM 7/18/2002 -0400, Mark Donaldson wrote: >I have noticed on Ebay a number of HF-2050s that have gone through the > demil process, that is rendered unusable by careful application of a > sledge hammer to critical areas. Although it pains me to see this happen I > have been tempted to acquire one of these puppies and bring it back to > life. So my questions are, has anybody acquired one of the units that has > been offered up on Ebay lately, the seller is located in PA and I would

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> > Thanks

> > Mark Donaldson WA1QHQ

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PS: To finish the story, there are likely still several hundred 2050s in military stocks, which will probably be released at some point. Gone are the days it seems, where pallet loads were sold, however. This 2050 is the first I've seen at my local monthly auctions in over 2 years. Don Moman in Alberta (VE6JY Don Moman <ve6jy@freenet.edmonton.ab.ca> ), is another great source of help and parts for the 2050. Perhaps he may be able to help with demiled units. I'd trust him any day over a dealer on eBay.

-----  
Date: Thu, 18 Jul 2002 19:35:49 -0700

From: "John Miles" <jmiles@pop.net>

Subject: Re: Prem-Rx: RA 6830 Phase/synthesizer noise Fascinating measurements. That power supply really makes a mess of things. Not a super-clean synthesizer even without it.

They must have made the same mistake that once drove me nuts on a homebrew project; namely, putting a VCO with a single-ended tuning line in a separate housing from the phase detector. You can't get away with that, as far as I can tell... you either get ground loop noise if you connect the two assemblies with a piece of coax, or you get major noise pickup in the tuning line if you don't use coax.

If that's what's happening, maybe you can break the ground loop by opening the shields on the interconnect cables at one end or the other.

- -- jm

- ----- Original Message -----



From: "Brian Comer" <bcomer1@cox.net> To: "PremRX" <premium-RX@kahuna.sdsu.edu> Sent: Thursday, July 18, 2002 7:07 PM

Subject: Prem-Rx: RA 6830 Phase/synthesizer noise

Hi All

Frank asked me for the numbers that I measured on the RA 6830 synthesizer noise. If you are interested you can find pictures taken from a spectrum analyzer at [www.ql.net/kf6c](http://www.ql.net/kf6c) just click RA6830 phase noise and you should get to the pictures.

Regards

Brian Comer KF6C

-----  
Date: Thu, 18 Jul 2002 19:46:05 -0700

From: Walter Salmaniw <salmaniw@shaw.ca>

Subject: Prem-Rx: My new Collins HF-2050: INPUT wanted! At 08:17 PM 7/18/2002 -0600, Gerald Caouette wrote: >I Will Second your vote of confidence in Don

>> Gerry >Ve6nap >Presently driving >6 - HF - 2050's / 1 - WJ 8718-19 / 1 - Cubic R3030 >1 Kenwood TS850 SAT / 1 Kenwood TS940 / Icom 706 IIG >Several 2 M rigs and scanners etc. etc. etc. >-

>> Nothing Beats the HF 2050's

Ah, here's a chance for some interesting discussion. ATTENTION 2050 drivers! I took the lid off the 2050 I acquired today and noted the following: It must be a latter day version of the 2050. It has 100 memories!!! from 0 to 99. Performance seems every bit as good as my rack mounted 2050. In fact, every 2050 I've owned seems to be virtually identical in performance. Comments? There is the J7 preselector control, but is this of any value without the outboard preselector (described as HF-8060)? It was my understanding that this accessory was not purchased by the Canadian military. Now comes something interesting. Microprocessor U8 on board Control A2 is not present. Is it supposed to be? Doesn't seem to make any difference to performance. Everything works as advertised. I originally thought, however, that this receiver subtype was the R-5099A due to the preselector port. If this was the case, it's supposed to have the ISB option, but this is not present. Perhaps U8 is responsible for ISB? The power supply is as hot as Hades, so I'll have to take care of that quickly before allowing it to run for any length of time. I'm very pleased all around. I think this will be a keeper with the 70 extra channels (first time I've seen this). By the way, Gerald was the other fellow I was thinking of in Alberta who has a lot of experience with this receiver. Hi Gerald!

Gerald, I've owned 2050s for almost as long as they've been available, and it allows me to comment on your "nothing beats the HF-2050s". I would have said the same thing a couple of years ago, but no longer. My stable is highly variable with receivers including the R390A, 7030+, 535D, R5000, Racal 1792, 6772 and 8772. I've previously used and owned the Racal 117, and Mackay 3031A. Some of the time, the 2050 is unbeatable, but I have many documented times where one or other of the receivers outperforms the 2050. The overheating is a real pain, and just plain stupid of Collins to have accepted this power supply. No excuse. The 2050 is also quite limited in that there is only 1 fixed bandwidth on USB/LSB, and no notch filter. No passband tuning. The keyboard entry is a bit of a pain as well. I have never liked the default lock which needs unlocking every time a frequency is entered. I've watched John Bryant and Don Nelson in action with their Ten Tec 340s and I'd give two of my 2050s any day for a 340. Now of course we're talking about 20 years separating the technologies. For it's time, the 2050 was absolutely awesome. Even today it is pretty impressive, but beatable, yes it sure can be. Do you know which receiver beats it most often? The R390A with Sherwood SE3!

Gentlemen, I invite comments!!!

.....Walt Salmaniw, Victoria, BC.

Date: Thu, 18 Jul 2002 22:32:01 -0700

From: "Don Nelson" <ulformat@teleport.com>

Subject: Re: Prem-Rx: My new Collins HF-2050: INPUT wanted! Walter Congrats on the 100 channel 2050. Since you didn't mention it, its probably not that rumored cream front panel is it? Anyone seen one of these? With respect to the 2050 --- it holds its own often against weak signal resolution when compared to the '340, wj8712P/8711a/hf1000a or 590A. As you mention, the R390A w/SE3 is an advantage, but almost any of these receivers is improved with the SE-3. The lack of the filters you mention is one reason why I don't bring my 2050 down to the beach during dxpedition times - the other radios (not including 590a/390a which have the same problems) are so much more versatile in the conditions of adjacent signal interference, especially on MW.

The wj/tentec receivers have the advantage of the RS232 link to the PC, with accessory driving program (I happen to like ERGO3 -- and ERGO4 now drives the 340 thanks to Fallow's visit to Grayland in March) it makes a great combination.

Best regards, and glad to see some interesting traffic on PremRx Don Nelson Oregon

- ----- Original Message -----

From: "Walter Salmaniw" <salmaniw@shaw.ca> To: "Gerald Caouette" <ve6nap@ve6nap.com>; "Mark Donaldson" <mark.donaldson@third-rail.net>; "PremRX" <premium-RX@kahuna.sdsu.edu> Cc: <ve6jy@freenet.edmonton.ab.ca> Sent: Thursday, July 18, 2002 7:46 PM

Subject: Prem-Rx: My new Collins HF-2050: INPUT wanted!

At 08:17 PM 7/18/2002 -0600, Gerald Caouette wrote: > I Will Second your vote of confidence in Don  
> > Gerry > Ve6nap > Presently driving > 6 - HF - 2050's / 1 - WJ 8718-19 / 1 - Cubic R3030 > 1  
Kenwood TS850 SAT / 1 Kenwood TS940 / Icom 706 IIG > Several 2 M rigs and scanners etc. etc. etc.  
> -

> > Nothing Beats the HF 2050's

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Gerald, I've owned 2050s for almost as long as they've been available, and it allows me to comment on your "nothing beats the HF-2050s". I would have said the same thing a couple of years ago, but no longer. My stable is highly variable with receivers including the R390A, 7030+, 535D, R5000, Racal 1792, 6772 and 8772. I've previously used and owned the Racal 117, and Mackay 3031A. Some of the time, the 2050 is unbeatable, but I have many documented times where one or other of the receivers outperforms the 2050. The overheating is a real pain, and just plain stupid of Collins to have accepted this power supply. No excuse. The 2050 is also quite limited in that there is only 1 fixed bandwidth on USB/LSB, and no notch filter. No passband tuning. The keyboard entry is a bit of a pain as well. I have never liked the default lock which needs unlocking every time a frequency is entered. I've watched

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Gentlemen, I invite comments!!!

.....Walt Salmaniw, Victoria, BC.

-----  
Date: Fri, 19 Jul 2002 08:18:32 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: RA 6830 Phase/synthesizer noise hi John, Yes I notice some ground noise getting into the loop. I was able to reduce it by placing a cap between the loop filter and the case of the vco. I also noticed a phase noise increase when connecting a second cable to the spare output. I have not tried floating one end of the shield but I bet it would help. Synthesizer noise is the next step in my hot rod 6830. Close in noise is my concern. I was burned the extra cable thing. I'm still trying to open Brian's file to see if it compares to my measured levels. fc - -----Original Message-----

From: John Miles [mailto:jmiles@pop.net] Sent: Thursday, July 18, 2002 10:36 PM To: Brian Comer; PremRX  
Subject: Re: Prem-Rx: RA 6830 Phase/synthesizer noise

Fascinating measurements. That power supply really makes a mess of things. Not a super-clean synthesizer even without it.

They must have made the same mistake that once drove me nuts on a homebrew project; namely, putting a VCO with a single-ended tuning line in a separate housing from the phase detector. You can't get away with that, as far as I can tell... you either get ground loop noise if you connect the two assemblies with a piece of coax, or you get major noise pickup in the tuning line if you don't use coax.

If that's what's happening, maybe you can break the ground loop by opening the shields on the interconnect cables at one end or the other.

- -- jm

- ----- Original Message -----

From: "Brian Comer" <bcomer1@cox.net> To: "PremRX" <premium-RX@kahuna.sdsu.edu> Sent: Thursday, July 18, 2002 7:07 PM

Subject: Prem-Rx: RA 6830 Phase/synthesizer noise

Hi All

Frank asked me for the numbers that I measured on the RA 6830 synthesizer noise. If you are interested you can find pictures taken from a spectrum analyzer at [www.qsl.net/kf6c](http://www.qsl.net/kf6c) just click RA6830 phase noise and you should get to the pictures.

Regards

Brian Comer KF6C

-----  
Date: Fri, 19 Jul 2002 09:56:42 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: RA 6830 Phase/synthesizer noise

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size= 2> Regards</FONT></DIV> < DIV>< FONT face= Arial  
size= 2></FONT> &nbsp;</DIV> < DIV>< FONT face= Arial size= 2> Brian  
Comer</FONT></DIV> < DIV>< FONT face= Arial  
size= 2> KF6C</FONT></DIV></BLOCKQUOTE></BODY></HTML>

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End of premium-rx-digest V1 #195 \*\*\*\*\*  
Subject: premium-rx-digest V1 #196  
premium-rx-digest Friday, July 19 2002 Volume 01 : Number 196  
-----

----- Date: Fri, 19 Jul 2002 10:26:08 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: My new Collins HF-2050: INPUT wanted!

Hi

I thought you could select a different input tap on the power supply to reduce the unregulated voltage to the regulators. A variac or auto transformer on the primary would also work. fc

- -----Original Message-----

From: Walter Salmaniw [mailto:salmaniw@shaw.ca] Sent: Thursday, July 18, 2002 10:46 PM To: Gerald Caouette; 'Mark Donaldson'; 'PremRX' Cc: ve6jy@freenet.edmonton.ab.ca

Subject: Prem-Rx: My new Collins HF-2050: INPUT wanted!

At 08:17 PM 7/18/2002 -0600, Gerald Caouette wrote: > I Will Second your vote of confidence in Don

> > Gerry > Ve6nap > Presently driving > 6 - HF - 2050's / 1 - WJ 8718-19 / 1 - Cubic R3030 > 1  
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Gentlemen, I invite comments!!!

.....Walt Salmaniw, Victoria, BC.

-----  
Date: Fri, 19 Jul 2002 08:58:27 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Re: Prem-Rx: RA 6830 Phase/synthesizer noise

- -----= \_NextPart\_000\_00BA\_01C22F02.7234D3E0

Not all RA 6830's generate the higher voltage on the 8 volt unregulated = line mine only has 9 Volts.

Brian Comer ----- Original Message -----

From: Carcia, Frank A. HS To: 'Brian Comer' ; PremRX Sent: Friday, July 19, 2002 6:56 AM

Subject: RE: Prem-Rx: RA 6830 Phase/synthesizer noise

Hi All, I measure the same levels with the linear power supply. One = interesting thing I found is the switcher power supply produces less phase noise because there is no 120 Hz = ripple floating around the chassis. The major source of 120 hz ripple in a radio using the a linear = power supply is the 8 volt bus. It is unregulated unlike the switcher. = Local regulators on A1 and the synthesizer module generate local 5 volt power. The regulator on the synthesizer has ripple on the = output. This 5 volts is used for reference voltages on a number of op amps in the loop so any ripple modulates = the loop. I also noticed the ground loop at the vco but wonder if it is = caused by adding a second cable to the spectrum analyzer. I found by accident that the receiver performance changes a lot when the spare = port has a cable on it. My crud test is connect a signal generator to the receiver and run the level up high = and tune across the signal. The wider it gets the poorer the lo. My Hot = Rod 6830 has dual filters in the IF so the skirts are sharp and the = ultimate rejection is much better. I'm afraid to measure it because I don't = like to hit the filter module with more than plus 10 dBm. I bought a couple spare linear power modules and plan to stuff in a = couple 8 volt regulators to kill the noise at the source. This is the = only buss without a regulator and the voltage actually is around 11.5 = volts. This higher output puts a real strain on the regulator located behind = the front panel due to limited heat sink size. My fix for that is to mount a TO220 on the side of the = chassis and hard wire it in. This drops the temp to very cool due to the surface area of the = chassis side rail. I also rerouted the 2 power supply outputs plus 8 and plus 20 to the = other side of the chassis away From the AC power cable to the on/off switch to eliminate coupling. It = had no effect though. The switcher has its own set of problems. Gary Wingerd told me the = linear was a later modification to reduce receiver birdies. One Racal customer wanted them to be = reduced. I guess who ever did the modification forgot to look at the synthesizer and thermal effects. = The pictures show the possible performance gain in a perfect situation. = fc -----Original Message-----

From: Brian Comer [mailto:bcomer1@cox.net] Sent: Thursday, July 18, 2002 10:08 PM To: PremRX

Subject: Prem-Rx: RA 6830 Phase/synthesizer noise

Hi All







Date: Fri, 19 Jul 2002 09:14:05 -0700  
From: "Brian Comer" <bcomer1@cox.net>  
Subject: Prem-Rx: RA 6830 poor narrow band IM specs

- -----=\_NextPart\_000\_00DF\_01C22F04.A1521140

Bringing the 40.455 IF connection out of the rear panel for my 10 GHz transverter has had a side benefit that I can now insert a home brew 4 KHz wide 40.455 MHz filter at the back of the receiver to improve the close in IMD.

Regards

Brian Comer KF6C

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Date: Fri, 19 Jul 2002 20:35:44 -0700 (PDT)  
From: Rodney Bunt <rodney\_bunt@yahoo.com>  
Subject: RE: Prem-Rx: My new Collins HF-2050: INPUT wanted! There is NOT a lot of head room on this power supply. I have tried the step down transformer from 102v to 110v worked fine, until one day I turned on the rig and got the dreaded "FAULT" led lit up.

OH NO!!!!

eventually found out that it was the "power supply good" comparator monitoring the PS output. The input mains had dropped below the critical level.....

So the answer is COOLING. I installed 2 x CPU fans in the top and bottom cover, run the 12v fans from the 5v, they run quiet, and move quite a bit of air. I put a temperature probe down one of the holes in the covers to measure the ambient air temperature, it dropped about 20 degrees. The whole rig was cooler too.

It really is a shame that Collins accepted such a poor power supply, one would think that they could have used the chassis for a heatsink, instead of putting a hot power supply, in a box without any cooling.

Rodney VK2KTZ www.radioglowbug.com - --- "Carcia, Frank A. HS" <francis.carcia@hs.utc.com> wrote: >

Hi

> I thought you could select a different input tap on the power supply to > reduce the unregulated voltage to the regulators. A variac or auto > transformer on > the primary would also work. fc

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From: Walter Salmaniw [mailto:salmaniw@shaw.ca] > Sent: Thursday, July 18, 2002 10:46 PM > To: Gerald Caouette; 'Mark Donaldson'; 'PremRX' > Cc: ve6jy@freenet.edmonton.ab.ca >

Subject: Prem-Rx: My new Collins HF-2050: INPUT wanted!

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better, live better <http://health.yahoo.com>

-----  
Date: Fri, 19 Jul 2002 20:58:40 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: RE: Prem-Rx: My new Collins HF-2050: INPUT wanted! At 08:35 PM 7/19/2002 -0700, you wrote: >There is NOT a lot of head room on this power supply. I have tried the >step down transformer from >102v to 110v worked fine, untill one day i turned on the rig and got the >dreaded "FAULT" led lit >up.

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>> It really is a shame that Collins accepted such a poor power supply, one >would think that they could >have used the chassis for a heatsink, instead of putting a hot power >supply, in a box without any >cooling.

**Rodney, this is the standard cooling technique that we all use. I too ran into the dreaded fault light problem, but before panicking, I too recalled going too low on the variac. Inched up, and the problem was solved. As I recalled, I could operate the unit somewhere down to 90v or so. For an exotic solution, Jan Skirrow outboarded the hot power supply of one of my 2050s and mounted it on it's own 19" rack. For details, check Jan's website at: <http://www.skirrow.org/Boatanchors/TechTalk7.pdf>**

**This mod works just fine. Have not identified any noise despite lacking any shielding, and it never heats up much. I have a tiny squirrel fan flowing across it just in case. I'm not aware of anyone else doing this.**

.....Walt Salmaniw, Victoria, BC

-----  
Date: Fri, 19 Jul 2002 21:36:55 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: RE: Prem-Rx: My new Collins HF-2050: INPUT wanted! At 10:26 AM 7/19/2002 -0400, Carcia, Frank A. HS wrote: >

Hi

>I thought you could select a different input tap on the power supply to >reduce the unregulated voltage to the regulators. A variac or auto >transformer on >the primary would also work.

**Frank, it seems to me there was discussion about selecting a lower input voltage on the power supply, but I don't recall anyone coming up with the specifics. Does anyone recall doing anything more? Also, I recall someone looking for volunteers to replace the defective heat producing power supply with a more modern cooler more efficient supply, but I don't recall this going anywhere either. Has anyone done any of this work?.....Walt.**

-----  
Date: Fri, 19 Jul 2002 21:48:45 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Re: Prem-Rx: My new Collins HF-2050: INPUT wanted! At 10:32 PM 7/18/2002 -0700, Don Nelson wrote: >Walter >Congrats on the 100 channel 2050. Since you didn't mention it, its >probably not that rumored cream front panel is it? Anyone seen >one of these? >With respect to the 2050 --- it holds its own often against weak signal >resolution when compared to the '340,



Salmaniw about 15 pico seconds after = I post this to inform the List that the 2050 was designed in Iowa, one of the 48 states. However, given all his rhetoric, the evidence still points to the fact that he owns five of these 'heaters'.  
< /DIV> < /DIV> < /DIV> You know, thinking back, I ain't never heard Walt complain about wintering over in Canada . . . I wonder if the window is open in his radio room?  
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Date: Fri, 19 Jul 2002 22:16:51 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Prem-Rx: Re: Living in Canada with five 2050's - --  
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At 09:51 PM 7/19/2002 -0700, Greg W. Bailey wrote: > Rodney:

> > You need to keep in mind that the 2050 was built in the land of the oak > leaf .....err, I mean the Maple Leaf. Naturally, it tends to get cold up > that way, so the fine folks designed the thermodynamics of the 2050 to > keep them warm during those long winter nights. If you will look on page > 249 (section A, paragraph 4) of the 2050 instruction manual it even > states, "for additional cooling, place the unit near an open window...."

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> > A great weekend to all- :-)

> > Greg

> > P.S. There is a ton of articles on the 2050's heat problems in the first > five weeks of the List archives.

Well, yes, I do have a number of these beautiful babies. Heck, I can't pass a government auction without looking at one, and saying "that baby belongs in my shack". Actually, with the rising cost of fuel oil, owning several 2050s is a reasonable option for heating ones abode. John Bryant should consider adding a 2050 to his new place on Orcas Is as a mini furnace ;). Seriously, though, my radio room went from being the coldest room in the house (the Northwest corner third floor, and the furthest from the furnace room) to the cosiest in the winter. I always keep the window open a crack, and it's very nice even on our coolest nights. This time of year it's open a good foot! Yep, designed in Iowa, but built at the Collins plant in Toronto. Came in under budget and ahead of time, for which HQ shut the plant down. Sad.

Walter (Volodya) Salmaniw, MD Victoria, BC, Canada.

DXing the world using AOR 7030+ /ERGO, Rockwell-Collins HF-2050, Racal 1792, JRC NRD 535D, Kenwood R5000, Collins R390A, Sony 2010, and Sony 1000T with the following antennae: T2FD, K9AY, 60 meter horizontal loop, Eavesdropper, 25 meter dipole, 25 MHz vertical, and random wire. All incoming and outgoing email is screened with the latest Norton Antivirus program.

- --Boundary\_(ID\_oGS5bEz8GkqkBWX2FfWV8w) charset= us-ascii



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-----  
Date: Fri, 19 Jul 2002 23:51:54 -0600  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: RE: Prem-Rx: Living in Canada with five 2050's OK, now I have to cut in on this one :-)

As I am sure that Gerald C. and Don M. (and any other Albertan's on the list?) will attest: Walt's QTH one of the mildest in Canada: Flowers blooming in March, when we in Alberta are freezing under 6 feet of snow and -25C.

In fact, Cedar Rapids has a cooler mean temperature than does Victoria, BC. So Walt would certainly need additional cooling to take into account the Iowa design, living in the "tropics" (relative to Alberta, at least) as he does :-)

Shaun

- -- smerriga@compusmart.ab.ca

O riginal Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Greg W. Bailey Sent: July 19, 2002 22:51 To: Walter Salmaniw; Rodney Bunt Cc: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: Living in Canada with five 2050's

Rodney:

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A great weekend to all- :-)

Greg

P.S. There is a ton of articles on the 2050's heat problems in the first five weeks of the List archives.

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Date: Sat, 20 Jul 2002 02:30:13 -0400 (EDT)



From: <steve@clickadeal.com>  
Subject: RE: Prem-Rx: Living in Canada with five 2050's Hi All,

Have been following the "hot" '2050 thread here for awhile. The one I looked at in 1996 was perfect, but without doc nor spares, so I passed; wasn't sure what it was and didn't feel like spending \$2200 to find out.

But the Q is:

If the supply is so substandard, why not outboard any one of the hundreds of good linear supplies available, or find one that will fit, or design a new one?

Haven't seen the prints, but it sounds like a failed supply might cut into the dimsum budget.

If anyone wants to know just how mucked up a large and "prestigious" company can get between marketing, specs, and power supplies; just contact me offline.

Good weekend.

73,

- -- Steve

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End of premium-rx-digest V1 #196 \*\*\*\*\*  
Subject: premium-rx-digest V1 #197  
premium-rx-digest Monday, July 29 2002 Volume 01 : Number 197  
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----- Date: Sat, 20 Jul 2002 09:47:52 -0400  
From: Al Klase <skywaves@bw.webex.net>  
Subject: Prem-Rx: Mackay Marine 3030A Gentlemen,

I'm working on an ITT Mackay Marine 3030A receiver. Do any of you have documentation on or experience with this LF/HF receiver?

It works, but is extremely noisy. Gain through the front end is approximately unity, which is what I'd expect. However, when I connect my shop receiver to the 5-Mhz IF port of the second mixer I have S-9 white noise.

Should I just write this off as yet another high-end radio with synthesizer problems that no one's going to fix?

73, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

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Date: Sat, 20 Jul 2002 10:16:19 -0400  
From: ipassets <machine.age@verizon.net>  
Subject: Re: Prem-Rx: Mackay Marine 3030A Al

For a manual, and more, contact Ron Ford at [www.testequipmentcanada.com](http://www.testequipmentcanada.com). That's Fords Surplus up there.

I had one of these rigs for some time. Relatively decent performance. Noisy synthesizer, though. A good buy for the money.

Cheerio John England Rhode Island

Al Klase wrote:

> Gentlemen,

> > I'm working on an ITT Mackay Marine 3030A receiver. Do any > of you have documentation on or experience with this LF/HF > receiver?

> > It works, but is extremely noisy. Gain through the front > end is approximately unity, which is what I'd expect. > However, when I connect my shop receiver to the 5-Mhz IF > port of the second mixer I have S-9 white noise.

> > Should I just write this off as yet another high-end radio > with synthesizer problems that no one's going to fix?

> > 73, > Al

> > -- > Al Klase - N3FRQ > skywaves@bw.webex.net > Flemington, NJ 08822 > Web Page: <http://www.webex.net/~skywaves/home.htm>

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Date: Sat, 20 Jul 2002 08:07:19 -0700

From: Walter Salmaniw <salmaniw@shaw.ca>

Subject: RE: Prem-Rx: Living in Canada with five 2050's At 02:30 AM 7/20/2002 -0400, steve@clickadeal.com wrote: >Hi All,

>> Have been following the "hot" '2050 thread here for awhile. The one I >looked at in 1996 was perfect, but without doc nor spares, so I passed; >wasn't sure what it was and didn't feel like spending \$2200 to find out.

Hi

Steve. The problem of no docs was addressed by me saving the manual From a dumpster (no kidding). My office is next to the naval base here in Victoria. I bugged the comm person on one of the destroyers based here (used to call him every week or two, knowing that the 2050 was about to be taken off the ship). I called one day, and he said, heck, I just chucked one, but I don't remember which dumpster, but I just happen to know where there's another one. Come on over and you can have it! Well I was there pronto. I then had some 60 or so copies made for the drivers of these fine receivers. Unfortunately, they were quickly snatched up leaving me with just one left and the original (and I have 4 now, actually). Those were interesting times! A rapid learning curve for all of us.....Walt.

-----  
Date: Sat, 20 Jul 2002 17:37:05 -0600

From: Nigel Pimblett <ntp@shockware.com>

Subject: Re: Prem-Rx: Living in Canada with five 2050's Although Greg speaks in jest, he hit pretty near the truth in my case. I tend to use my 2050 during the winter out at my beverage site, where the only other heating is a small wood stove. It's often -20 out there, and the 2050 helps take a little of the nip out of the air. Even after several hours, the top of the cabinet only reaches the comfortably warm stage, making it doubly useful when one feels the fingers beginning to go numb! Of course, as has been pointed out, Walt lives in a part of the country that climatically can't really be considered truly Canadian!

73,

Nigel Pimblett Medicine Hat, Alberta

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Date: Sat, 20 Jul 2002 17:18:25 -0700

From: jan@skirrow.org

Subject: Re: Prem-Rx: Living in Canada with five 2050's Hi All ...

As Walt mentioned in one of his posts on this topic, I removed the PS from one of his 2050s, mounted it on a 5" panel which was then placed in Walt's rack on the back side above the 2050. The details are on my website. At the time we contemplated placing a fan on the thing, but it operated cool enuff once out of the 2050 box that this wasn't necessary.

There's guys here who know more about this radio than I do, but for what it's worth ...

I doubt if the 2050 would be pleased with a modern switching power supply. Would be worth a try, however.

If you can't use a switching supply, there is little you can do to reduce heat by trying to design a new supply that'll go into the same space. As someone pointed out, the original supply has little headroom - presumably this results from Collins concern with the heat problem, so they ran the supply as close to "not regulating" as possible while still keeping within the milspec on line voltage variation.

In other words, either use cooling fans (not ideal because of the cramped compartment - but way better than nothing) or outboard the sucker. It's very easy to do.

On buying a demil: I've had a couple of Walt's 2250s on my bench. I would be EXTREMELY reluctant to buy one that had been "demilled" unless I was certain what had been done to it, and had a source of parts. The radio was 'state of the art' when it was made, it is old, and there are parts that you will not be able to find anywhere except in another 2050. Also, altho Walt didn't mention it, the mil technician he spoke to was emphatic about the difficulties in repairing the radio (except for power supply and routine stuff), and depot service was required for many faults. I seem to recall somewhere a post from someone who either had worked on the radio at Collins, or knew someone who had. Again, the message seemed to be that there was way more art than science to getting some sections working properly, and without the factory jigs it would be even more difficult.

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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Date: Sat, 20 Jul 2002 18:11:02 -0700

From: "John Miles" <jmiles@pop.net>

Subject: Re: Prem-Rx: Living in Canada with five 2050's > In other words, either use cooling fans (not ideal because of the cramped > compartment - but way better than nothing) or outboard the sucker. It's > very easy to do.

Why not just lower the line voltage? A filament transformer wired to buck the line voltage by 6.3 or 12.6 VAC would probably make a very noticeable difference in power supply heat.

BTW, I still have a couple of surplus HF2050 power supplies (untested condition but should be working or at least repairable) if anyone needs one.

- -- jm

-----  
Date: Mon, 22 Jul 2002 09:01:54 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: RA 6830 poor narrow band IM specs This is what I measure for phase noise on a HP141. This is peak noise not the fancy HP software that averages it. It is corrected for bandwidth. Each case I used 10 HZ bandwidth. I tried 3 different receivers all buttoned up. The ripple was way down, but observed Brian's numbers before but suspect setup related. Hot Rod has a bunch of modifications to help phase noise and close in IMD The switcher has more birdies due to the 200 KHZ switching frequency.

fc

STOCK With Switcher

10 KHz - 95 dB 1 KHz -85 100 Hz - 85

- 518 with linear (Same as - 516)

10 KHz - 90 dB 1 KHz - 70 100 Hz - 75

Hot Rod With Linear

10 KHz - 95 dB 1 KHz - 85 100 Hz - 80

> -----Original Message----- >

From: Brian Comer [SMTP:bcomer1@cox.net] > Sent: Friday, July 19, 2002 12:14 PM > To: PremRX >

Subject: Prem-Rx: RA 6830 poor narrow band IM specs

> > Bringing the 40.455 IF connection out of the rear panel for my 10 GHz > transverter has had a side benefit that I can now insert a home brew 4 KHz > wide 40.455 MHz filter at the back of the receiver to improve the close in > IMD.

> > Regards

> > Brian Comer KF6C

-----  
Date: Mon, 22 Jul 2002 20:20:49 +0400

From: "JEAN-PHILIPPE.LEBON" <JEAN-PHILIPPE.LEBON@wanadoo.fr>

Subject: Prem-Rx: wj 8712

- =====\_NextPart\_000\_0037\_01C231BD.44C90580

any advice or any test report about this pc controlled rx ? is it up to = a wj 8711 ? is the software user - friendly ? reliable ? thank you in = advance and 73s : jean philippe .

- =====\_NextPart\_000\_0037\_01C231BD.44C90580

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- =====\_NextPart\_000\_0037\_01C231BD.44C90580--

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Date: Mon, 22 Jul 2002 13:04:56 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: Prem-Rx: Hi All, There is an interesting RA6790 on ebay. It has a high dynamic range second mixer module from a RA6830 D.F. radio installed in it. Interesting modification. fc

-----  
Date: Mon, 22 Jul 2002 13:21:12 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: Prem-Rx: Hi All, I would be very interested in knowing the synthesizer phase noise of other receivers. I'm more interested in peak phase noise but averaged would also provide good information. Maybe this could appear in the receiver table.

fc

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Date: Mon, 22 Jul 2002 11:16:24 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Chip Brown

- -----=\_NextPart\_000\_0344\_01C23171.36E2E4A0

#### Fellow List Members:

Chip Brown (wbrown@mitre.org) joins our List from the Boston area. His life in radio started when he missed his first day of school in the sixth grade because his mother took him to the Hartford FCC office for his novice exam. That was 50 years ago, and he has been playing in radio ever since. He admits to always having a "receiver bug". His thesis in school was on the topic, later his vocation was in the area of high performance radar receivers.

He has a collection of BAs, including, "several 75A4s that I have worked over through the years. When you work with software/firmware/DPS receivers all day long the beauty of the 'boats' is an easy way to relax in the evening" - .

At present he is working on a limited production military version of the Ten Tec 340.

Greg

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<DIV> &nbsp;  </DIV> <DIV> Greg</DIV></BODY></HTML>
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- -----=\_NextPart\_000\_0344\_01C23171.36E2E4A0--

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Date: Mon, 22 Jul 2002 11:59:57 -0700  
From: "John Miles" <jmiles@pop.net>  
Subject: Re: Prem-Rx: I have a couple of graphs for the I com R-7000 on the page at  
http://www.qsl.net/ke5fx/synth.html for comparison purposes against a work-in-progress. The purple  
traces are the R-7000.

Some time after taking these graphs, I discovered that the logamp in this particular analyzer was a little out of tolerance at the small-signal end of its range. You need to add about 3-4 dB to the stated phase-noise figures in the captions, and if you want to be really accurate, you need to add another 2-2.5 dB to compensate for the video detector's response to Gaussian noise. The 494AP I'm using now solves all of those problems, but I haven't had a chance to go back and re-do the measurements on it.

-- jm

> Hi All, > I would be very interested in knowing the synthesizer phase noise of > other receivers. I'm more interested in peak phase noise > but averaged would also provide good information. Maybe this could > appear in the receiver table.

> > fc >

-----  
Date: Mon, 22 Jul 2002 17:53:21 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: New Member: Chip Brown Us guys in the Hartford area went to Boston Custom House. FCC came to Hartford a couple times a year. I wonder if Chip was avoiding the dreaded Mr. Sarno? I heard him tear a guy a new one when I took a comerial First Phone Test. There was a TVI issue and the guy had a real laim fix. fc

> -----Original Message----- >

From: Greg W. Bailey [SMTP:gbailey@mail.sdsu.edu] > Sent: Monday, July 22, 2002 2:16 PM > To: Premium-Rx@kahuna.sdsu.edu >

Subject: Prem-Rx: New Member: Chip Brown

> > Fellow List Members:

> > Chip Brown (wbrown@mitre.org <mailto:wbrown@mitre.org>) joins our List > from the Boston area. His life in radio started when he missed his first > day of school in the sixth grade because his mother took him to the > Hartford FCC office for his novice exam. That was 50 years ago, and he > has been playing in radio ever since. He admits to always having a > "receiver bug". His thesis in school was on the topic, later his vocation > was in the area of high performance radar receivers.

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> > At present he is working on a limited production military version of the > Ten Tec 340.

> > Greg

-----  
Date: Mon, 22 Jul 2002 21:30:33 -0700

From: "Don Nelson" <ulformat@teleport.com>

Subject: Re: Prem-Rx: wj 8712

- -----=\_NextPart\_000\_0060\_01C231C7.02B58A60

HI

Jean I have the 8712P - I use them extensively, along with 8711A and HF1000A = variants, dxing MW and SW on the WCNA. I don't have the 8712A's so = cannot comment on these directly.

8712P are electrically identical with the WJ8711, but physically 2/3 the height (2U) and 1/2 the width of the WJ8711A (but just a little deeper). The price point is a big higher than a standard 8711A, but not by much. I have yet to see one on Ebay.

You might see an occasional 8712A variant on ebay as a bunch of 8712A boards were let go to the employees at reduced cost due to a QA mistake - - the boards were overcooked in the QA ovens during reliability tests - nothing major, the buyer didn't want them. These are invariably the older rev of the board that won't permit the upgrade to the most recent = 4.1.10 microcode. (They are the older 4.1.2 and 4.1.3 microcode, and = older motherboard).

Orders new from BAE Systems take about 4-6 months. Almost all the features of the WJ8711A are available -- excepting the change in the roofing filter to 8kHz (I've never noted any difference in adjacent channel dxing between the 16 and 8kHz roofing filters, but there are those that feel this does make a difference).

Which software are you referring to? I never purchased the WJ87xx software as the ERGO3 and ERGO4 do just fine with controlling the receiver -- and ERGO has more features.

Regards Don ----- Original Message -----

From: JEAN-PHILIPPE.LEBON To: premium-rx@kahuna.sdsu.edu Sent: Monday, July 22, 2002 9:20 AM

Subject: Prem-Rx: wj 8712

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From:</B> < A title= 3DJEAN-PHILIPPE.LEBON@wanadoo.fr href= 3D"mailto:JEAN-PHILIPPE.LEBON@wanadoo.fr"> JEAN-PHILIPPE.LEBON</A> = </DIV> < DIV style= 3D"FONT: 10pt arial"> < B> To:</B> < A = title= 3Dpremium-rx@kahuna.sdsu.edu = href= 3D"mailto:premium-rx@kahuna.sdsu.edu"> premium-rx@kahuna.sdsu.edu</A> = </DIV> < DIV style= 3D"FONT: 10pt arial"> < B> Sent:</B> Monday, July 22, 2002 = 9:20 AM</DIV> < DIV style= 3D"FONT: 10pt arial"> < B>

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- -----= \_NextPart\_000\_0060\_01C231C7.02B58A60--

Date: Tue, 23 Jul 2002 16:45:04 -0500  
From: "Joe Watson" <wwatson5@cox.net>  
Subject: Prem-Rx: Availability of Test Equipment

- -----= \_NextPart\_000\_0012\_01C23268.4BBF21C0

charset= "Windows-1252"

I am helping our university dispose of some surplus Tektronix lab test = gear.

Thought some of the Premium RX gang might be interested in some of this. = It all appears to be functional, but will be sold as is.

Here is what we have and we have several of each item:

Tektronix 2230 100MHz Digital Oscilloscope Tektronix DM501A DMM Tektronix DM504A Autoranging DMM Tektronix TM506 Modular Test Equipment Rack (6 wide) Tektronix TM5006 Modular Test Equipment Rack, w/GPIB Tektronix FG501A Function Generator Tektronix FG502 Function Generator Tektronix DM504A Counter/Timer Tektronix PG508 50 MHz Pulse Generator Tektronix 1230 Logic Analyzer (one channel, 16 bits, no probe)

If you are interested in any of it, let me know. Prices are good.

Joe W5WBR

- -----= \_NextPart\_000\_0012\_01C23268.4BBF21C0

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DMM</DIV> <DIV> Tektronix TM506 Modular Test Equipment Rack (6 wide)<BR> Tektronix =  
TM5006 Modular Test Equipment Rack, w/GPIB<BR> Tektronix FG501A Function =  
Generator</DIV> <DIV> Tektronix FG502 Function Generator<BR> Tektronix DM504A =  
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- -----=\_NextPart\_000\_0012\_01C23268.4BBF21C0--

Date: Mon, 29 Jul 2002 10:23:27 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: Prem-Rx: Racal RA6830 synthesizer crud Hi All, I fixed a VCO noise problem when the VCO cover had a poor connection to the case. The post holding the cover was too tall so there was a poor ground. I filed the end of the post shorter so there was a slight dimple in the cover when installed. This loaded the cover against the case. One could also install a #4 sheet metal screw on each side of the cover is necessary. fc

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**End of premium-rx-digest V1 #197 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #198**  
**premium-rx-digest Friday, August 9 2002 Volume 01 : Number 198**  
-----

----- Date: Mon, 29 Jul 2002 18:05:31 -0400

From: michael j brown <piggin@mindspring.com>

Subject: Prem-Rx: Real DSP: what I want to see As I observe the various DSP rigs out there, it strikes me that they have not gone far enough. Lots of digital filter bandwidths are nice, as is the amazing shape factor quality. But here is what I want. I want a card for my pc that would accept several common IF frequencys for input and that would: 1) Incorporate a spectrum display of the full IF bandwidth(20kc min) 2) Superinpose on that a picture of the digital filter response 3) I want to be able to shape the skirts of the filter with my mouse 4) I want to be able to make bumps and notches in the skirts too. It would be nice to see a pro rig with a touch screen that would do the same. This is the ultimate in flexibility...and would provide paradigm changing performance enhancement. And I could use my current gear, which already has excellent RF performance. Would anyone else buy something like this?

----- Date: Tue, 30 Jul 2002 08:40:20 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Real DSP: what I want to see hi All, I agree. I'm playing with a mot DSP56303evm connected as a I/Q demodulator. I have a number of bandwidths possible. my next life I want to be a software puke. fc

- -----Original Message-----

From: michael j brown [mailto:piggin@mindspring.com] Sent: Monday, July 29, 2002 6:06 PM To: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: Real DSP: what I want to see

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1) Incorporate a spectrum display of the full IF bandwidth (20kc min) 2) Superimpose on that a picture of the digital filter response 3) I want to be able to shape the skirts of the filter with my mouse 4) I want to be able to make bumps and notches in the skirts too. It would be nice to see a pro rig with a touch screen that would do the same. This is the ultimate in flexibility...and would provide paradigm changing performance enhancement. And I could use my current gear, which already has excellent RF performance. Would anyone else buy something like this?

-----  
Date: Wed, 31 Jul 2002 22:41:55 +0200

From: "Vittorio De Tomasi" <ik2czl@amsat.org>

Subject: R: Prem-Rx: Real DSP: what I want to see > As I observe the various DSP rigs out there, it strikes me that they have > not gone far enough. Lots of digital filter bandwidths are nice, as is the > amazing shape factor quality. But here is what I want. I want a card for my > pc that would accept several common IF frequencies for input and that would: > 1) Incorporate a spectrum display of the full IF bandwidth (20kc min) > 2) Superimpose on that a picture of the digital filter response > 3) I want to be able to shape the skirts of the filter with my mouse > 4) I want to be able to make bumps and notches in the skirts too. > It would be nice to see a pro rig with a touch screen that would do the same. > This is the ultimate in flexibility...and would provide paradigm changing > performance enhancement. And I could use my current gear, which already has > excellent RF performance. > Would anyone else buy something like this?

Hi Michael and the list,

Sure the device you are describing seems appealing, although some more desires come to my mind that are not into your wishlist (diversity reception, advanced denoisers, and so on).

I don't know if Santa Claus will bring you one day the device you are wishing, but I think that we radio lovers can probably try to build with our hands and minds the magic device we are waiting for, maybe before Christmas arrives...

Some examples of homebrew DSP receivers appeared in the past here and there (QEX, TAPR, etc.) using dedicated DSP hardware, but now our PCs have enough power for doing the job we need without DSP. You probably know the nice program developed by SM5BSZ for EME work: although it sure doesn't fit our wishes (it is too weak signals targeted, has quite a long latency time, and so on), nevertheless it shows us how much you can do with a sound card and a PC.

On my own side, after having developed programs like Hamview and Spectran with my dear friend Alberto I2PHD, I started last year working around an idea I had some time ago.

My point of view is that if the IF output of a receiver is downconverted down to say 10-12 kHz (as it is done in Ten-Tec RX320, for example), the output of the downconverter can be easily sampled by a sound card and processed for filtering, denoising, and demodulation by the PC. I wrote down a few lines of code, and I could easily get a "toy" square-law detector for AM demodulation. I connected the sound card to the 10 kHz IF output of a selective voltmeter WG-12, and it worked!

The puppy has grown a bit from that time, although some troubles of my life stole me a lot of the time I wanted to devote to this project. At present my IF DSP implements a square law AM detector, a product SSB detector, a very good AGC with selectable time constants, a level meter (I don't call it "S-meter" because it looks pretty accurate), and a 4 kHz low pass filter after the demodulator.

There is also a rudimental IF filter (it is a simple biquad for now), but it has to be improved. I designed the filter mainly to check that the poor dynamic range (30 dB) I was getting at the beginning of my experiments was due to the combined effects of the 1/f noise and of the spurious birdies sprayed around the sound card bandpass (I was right). With the filter inserted I measured that the DSP IF strip has a dynamic range of 80 dB on my old laptop - a weak internal spurious signal of the sound card centered at 9 kHz is actually stopping me from reaching the more or less 100 dB I was expecting. A

better IF filter is however on the way, I only have to decide which is the best solution to choose among the several I have by hand...too many degrees of freedom!

The latency time (the time passing from the moment the signal enters the sound card to the moment it is played on the speaker) I obtained is also pretty good, it is roughly 2-300 ms but it can be made still smaller. The software works under Windows, but I am also working on a Linux version. You can find the IF DSP software on my website <http://www.detomasi.it>, if you want to play with it (the construction of the downconverter is up to you!). Please keep in mind that it is a piece of software very far from a final release, so "caveat emptor"!

I was amazed to discover that I wasn't the first one who had such an idea: a japanese amateur developed something like this, but he didn't go much further than developing a demodulator. I will put the link to his page on my web site, the next time I update it.

I have a lot of DSP things to put into the software I developed before I finish the CPU time (denoiser, synchronous AM detector, panoramic display, recorder, etc.), but first I need to finish building the IF downconverter that will be connected between the sound card and my R390A / HP8640B: it is time now to do some more serious testing on the IF system I developed!

I don't know if I will be the one that will eventually develop the "point and click" DSP IF that you are waiting for, but at least I wanted to throw a stone into the pond...now let's look at the waves!

vy 73

Vittorio ik2czl

- ----- Vittorio De Tomasi ik2czl@amsat.org

<http://www.weaksignals.com> <http://www.detomasi.it>

-----

Date: Tue, 30 Jul 2002 15:39:48 -0700

From: "Calvinf15" <calvinf15@earthlink.net>

Subject: RE: Prem-Rx: Real DSP: what I want to see Hi Vittorio,

See the link for a Linux version of some similar software at:

<http://ham.te.hik.se/homepage/sm5bsz/linuxdsp/linroot.htm>

(I think this came across the newsgroup last year sometime)

Adam

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Vittorio De Tomasi Sent: Wednesday, July 31, 2002 1:42 PM  
To: premium-rx@kahuna.sdsu.edu

Subject: R: Prem-Rx: Real DSP: what I want to see

> As I observe the various DSP rigs out there, it strikes me that they have > not gone far enough. Lots of digital filter bandwidths are nice, as is the > amazing shape factor quality. But here is what I want. I want a card for my > pc that would accept several common IF frequencies for input and that would: > 1) Incorporate a spectrum display of the full IF bandwidth (20kc min) > 2) Superimpose on that a picture of the digital filter response > 3) I want to be able to shape the skirts of the filter with my mouse > 4) I want to be able to make bumps and notches in the skirts too. > It would be nice to see a pro rig with a touch screen that would do the same. > This is the ultimate in flexibility...and would provide paradigm changing > performance enhancement. And I could use my current gear, which already has > excellent RF performance. > Would anyone else buy something like this?

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Vittorio ik2czl

- ----- Vittorio De Tomasi ik2czl@amsat.org

<http://www.weaksignals.com> <http://www.detomasi.it>

Date: Wed, 31 Jul 2002 03:20:28 EDT

From: GandalfG8@aol.com

Subject: Re: R: Prem-Rx: Real DSP: what I want to see - --part1\_8f.1fc953fc.2a78e9bc\_boundary

Thanks Vittorio That sounds great... all I need now is a 10KHz IF:-) I'm not familiar with the non UK Racals but have just been taking a look at the schematic for the 100KHz IF module on the RA1792. Other than the 5.55Mhz local oscillator, and the mixer circuitry itself, there's very little in there that's frequency sensitive. The divider chain in the synthesiser is based on programmable dividers, currently set to 5550 to match the 5.55Mhz local oscillator. Changing that to 4650 shouldn't involve too much track cutting and for an initial trial it might even be possible to pad the oscillator coil with enough extra capacitance to drop the frequency. One initial potential problem though, with using a local oscillator frequency so close to the incoming 455 KHz signal, would be local oscillator feedback into the receiver. The mixer itself only provides about 40db attenuation and the post mixer filtering, as currently fitted, relies on the higher LO frequency. It sounds almost too easy, and I'm sure there'd be other problems turn up along the way:-), but could make for an interesting modification. regards Nigel G8PZR

- --part1\_8f.1fc953fc.2a78e9bc\_boundary

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- --part1\_8f.1fc953fc.2a78e9bc\_boundary--

Date: Mon, 5 Aug 2002 09:19:56 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Real DSP: what I want to see Hi Vittorio, The Racal works great with your software. I was able to modify and operate your program. I used a P133 almost maxed out. I have a couple suggestions if you are interested. Add CW with a small box under each mode. Each box would contain the BFO frequency. Also a box to contain the bandwidth. Really going crazy upper and lower cut off frequency. I hope I don't sound like a boss because you did a nice job! fc

- -----Original Message-----

From: vdetomasi@tiscali.it [mailto:vdetomasi@tiscali.it] Sent: Thursday, August 01, 2002 8:49 AM  
To: Carcia, Frank A. HS

Subject: RE: Prem-Rx: Real DSP: what I want to see

> into DSP as the demodulator interface. Your approach is > also very interesting because the computer is the only hardware > required. I would love to see a little more range of IF frequency > so I can connect the 6.4 KHz Racal Base Band output to the computer. Your > present configuration will only work with one side band for me.

Hi Steve,

I suppose you downloaded the ifdsp release 0.3. Inside the zip file you downloaded there is a file named ifdsp.ini . Edit this file with a texteditor and change the line:

```
f0= 10000.0
```

into

```
f0= 6400
```

Check that the edited file is in the same directory as the ifdsp.exe you execute. This should fix your problem. Let me know....

Vittorio

Vittorio De Tomasi ik2czl@amsat.org <http://www.weaksignals.com>

Tiscali

Ricaricarsi la prima prepagata per navigare in Internet a meno di un'urbana e risparmiare su tutte le tue telefonate. Acquistala on line e non avrai nessun costo di attivazione né di ricarica!  
<http://ricaricasonline.tiscali.it/>

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Date: Mon, 05 Aug 2002 06:38:08 -0700

From: <jeffa@ix.netcom.com>

Subject: Prem-Rx: Racal 6217D19 Over the weekend I picked up a Racal 6217D19 receiver, which seems to be the same as a 6217 receiver except it has no VFO tuning assembly. My guess is that it is designed to operate with a standard 6217 to provide diversity reception (or for DF work).

The seller provided very little documentation with this receiver, and I was wondering if anyone knows a bit more about it? For example, there are two VFO inputs, the first of which which I'm guessing should step from 40.5 to 69.5 MHz in 1 MHz steps, and the second of which should cover 3.6 to 4.6 MHz.

Does anyone know what the levels should be for these two signals?

Also, because I don't have a standard 6217 to slave this receiver to, I was thinking of just driving the first VFO with a continuously variable oscillator (rather than one that steps in 1 MHz chunks) and not drive VFO2 at all. Does any one see a problem with this?

Thanks,

- - Jeff, WA6AHL

-----  
Date: Mon, 5 Aug 2002 11:17:02 EDT

From: GandalfG8@aol.com

Subject: Re: Prem-Rx: Racal 6217D19 - --part1\_24.297969a5.2a7ff0ee\_boundary

Hi Jeff I understood that the 6217D was intended to be a remote control version of the 6217, which is similar to the UK model 1217, although perhaps the D does mean diversity as you suggest. The 1217 was the semiconductor follow up to the RA17 series and uses the same Barlow Wadley drift correction system on the first IF. If you feed this with a continuously variable signal it will try and lock on to the the nearest 1MHz point but not quite sure what will happen if it's well outside of lock range. It's not

going to permit continuous tuning via that input though as it stands. I know somebody else who has a 6217D and has not been able to locate a manual but there is a full 1217 manual available for download from the BAMA website which might be a useful starting point. regards Nigel Clarke G8PZR

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</FONT> </HTML> --part1_24.297969a5.2a7ff0ee_boundary--
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Date: Tue, 6 Aug 2002 07:45:22 +1000

From: "George Georgevits" <georgg@bigpond.net.au>

Subject: Prem-Rx: Manual For Tek 2710 Spec Anz Anyone out there know where I may be able to buy/borrow/copy a service manual for a Tektronix 2710 Spec Analyzer?

Thanks, George Georgevits VK2KGG

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Date: Fri, 9 Aug 2002 16:05:04 +0300

From: "Oleg Skidan" <skidan@mail.ints.net>

Subject: Prem-Rx: Problem with MC145170

- -----=\_NextPart\_000\_000B\_01C23FBE.867536C0

charset="koi8-r"

Hello, All.

I have made a synthesizer for my HF transceiver (based on MC145170). And I have a problem with it. When I send data to N register (MC145170's main divider) I hear click = From the receiver speaker (Even when I write the same value as it was).

Also If I continuously update the N register with the same data the = frequency become unstable and synthesizer outs of lock.

All is OK if I continuously update the R register (reference divider).

Does anybody have such problems with MC145170? Perhaps I need to update from MC145170 to MC145170-2?

Thanks, Oleg. 73 de UR3IQO.

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charset="koi8-r"

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End of premium-rx-digest V1 #198 \*\*\*\*\*  
Subject: premium-rx-digest V1 #199  
premium-rx-digest Friday, August 16 2002 Volume 01 : Number 199  
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----- Date: Fri, 9 Aug 2002 10:27:11 -0400  
From: "Barry Hauser" <barry@hausernet.com>  
Subject: Re: Prem-Rx: Debeg 2000, anyone? Hi all:

I'm new to the list. I haven't noticed whether the traditional intro was sent out yet. Some of you know me from elsewhere.

In brief, I have a couple of WJ-8718A's, two RA6790/GM's and an ITT-Mackay 3020A, among others, all working.

I have a problem with this Debeg 2000. It doesn't initialize properly. Each time I power up, I get single digits or partial digits on the display and varying patterns of mode buttons lit up. There is white noise with a hint of signal in the background, so something is alive. For the most part, the control panel doesn't respond to any of the buttons. Once in a while, a button press might trigger some change in the display and it may appear to "scan" or count up to 9999.

This rx uses an 8080 processor. It's running hot to the touch, but I don't know if that's normal. Nowadays, microprocessors often require a heat sink and mini-fan. The fiberglass PC board is discolored around the 8080 and two nearby chips due to the heat.

I have the manual, but it doesn't have anything in the way of real diagnostic/troubleshooting help. I've checked the basic P/S voltages but there are a bunch of tab type regulators distributed around the mainboard which I have not checked. I see what appear offhand to be quite a few dipped tantalums which are often a problem in Tek scopes of similar vintage.

As far as I know, the Debeg 2000 is unique, not equivalent to a Drake or other model.

Is anyone familiar with these? Resources? I've been in touch with the successor company in Hamburg. The tech who knew these well retired not long ago. Any assist will be appreciated.





Subject: Re: Prem-Rx: WJ 8617 AND 8618 Hi Dave,

I can't find any mention of 8618. WJ-8617B tunes 20 to 500 MHz plus options to 1GHz+ . There is a WJ-8718 HF set. Perhaps there's some transposed digits here.

Al

-- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page:  
<http://www.webex.net/~skywaves/home.htm>

-----  
Date: Sat, 10 Aug 2002 07:01:57 -0400  
From: Geoff Greer <greer86@attglobal.net>  
Subject: Re: Prem-Rx: WJ 8617 AND 8618

Hi

The main difference is the 8618 has much more sheilding per military specifications. 8618's generally come with the frequency extension (FE or FEX) installed which take the radio up to 1100 or 1200 mhz. There are also significant differences whether the radio is an A, B or B(S1) model. WJ built many different flavors of these radios including at least 1 variant that the frequency received was not the frequency displayed. IMHO, the B(S1) is the most desirable because you don't need the matching firmware on the option boards. The other models the firmware on the options has to match the version and option list of the firmware on the CPU board.

One caveat with these radios, check the option label on the rear of the radio and then open the radio and make sure that the options are still there. Almost all the options just plug in.

Geoff

8/9/02 21:48:33, Daiungoed@aol.com wrote:

>>>

From: Daiungoed@aol.com > Date: Fri, 9 Aug 2002 21:48:33 EDT

>>

Subject: Prem-Rx: WJ 8617 AND 8618 > To: premium-rx@kahuna.sdsu.edu

>>>>

Hi

> can someone tell me the difference between an 8617 and an 8618? Thanks,

>> Dave

-----  
Date: Sun, 11 Aug 2002 03:10:51 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Barry Hauser

Fellow List Members:

I thought when I retired after 33 years of teaching that I could spend = more time working on our List, establishing an updated WebSite, etc, = etc, etc, WRONG- As I have heard before, and I will repeat now, I am = so busy now I don't know how I ever found time to go to the university = and work each day. So here is the intro for one of our newest members. = I apologize that I have missed a few along the log in the past year. I = will try to go back and fill in the gaps as I read the dated e-mail on = the C-drive of this computer.

One of our newest members is Barry Hauser- current editor of the Hollow = State Newsletter. Barry lives in East Meadow, but has an office in = Hicksville, NY (25 miles east of Manhattan). He has

been involved in = electronics -- radio, audio and computer -- since the mid 60's, even a = bit in the late 50's as his following list demonstrates.

I am sure many of our readers will enjoy this little 'technical hike' = down memory lane as much as I did. Starting with the RAK/RAL military = TRF types, then the BC-312, 314, 348, then a few commercial sets like = the Hallicrafters SX-28, 42, 62, 71, add the SP-600, 200s, and a = HQ-180AC, and don't forget the Racal RA-17C-12.

He has had a few portables such as one of John Bryant's (List member) = Zenith Transoceanic, a Grundig, and a Sony. Oops, forgot the two = R-1051s ....make those plain, 2X B versions, and a single G type.

Boat anchors, yup.... 8X 390A, a pair of 390non-As, one 391, and a few = 392 samples collected over the years. There are a few "green radios" = including TBY, AN/GRR-5/R-174, R-808, GRC-106A, etc.

But the qualifiers of interest are: a pair of Racal 6790GM both on = serial interface and updated firmware, a couple of WJ 8718As, an ITT = Mackay 3021A, and a presently \*\*\*silent\*\*\* Debeg 2000.

At the moment, he is obsessed with the Debeg 2000 and has been in touch = with the remnant of the manufacturer in Hamburg, who recently informed = him that the technician who was most familiar with the 2000 retired a = few months ago. Barry states that Debeg was bought by Siemens, then = Telefunken, and then something else happened. The something else is the = problem!

In his words; "At the moment, (...the Debeg 2000)...it's performing like = a cross between a premium-rx and an electronic slot machine -- something = is going on, but I haven't even come up with two cherries and my quarter = back. Each time you power up, something else comes up on the frequency = display and white noise sometimes with something very faint in the = background. It's loaded with CMOS and Schottkey IC's and an 8080 = processor which seems to be running hot.

I trust someone on the List will help Barry get his quarter back???? He = can be reached at-  
barry@hausernet.com

Welcome to the List-

Greg

- -----\_NextPart\_000\_008E\_01C240E4.B2B4A6E0

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</HEAD> <BODY bgColor=3D#ffffff> <DIV> <DIV><FONT face=3DArial
size=3D2> Fellow List Members:</FONT></DIV> <DIV><FONT face=3DArial
size=3D2></FONT> &nbsp;</DIV> <DIV><FONT face=3DArial size=3D2> I thought when I
retired after 33 years = of teaching that I could spend more time working on our List, establishing an
= updated WebSite, etc, etc, etc.&nbsp;</FONT><FONT face=3DArial = size=3D2> WRONG-
&nbsp;</FONT> As I have heard before, and I will repeat now, I am so busy now I don't know = how I ever
found time to go to the university and work each day.&nbsp;</FONT><FONT face=3DArial
size=3D2> So here is the intro for one of our newest = members.&nbsp;</FONT> I apologize that I have
missed a few along the log in the past year.&nbsp;</FONT> = I will try to go back and fill in the gaps as I read
the dated e-mail on the = C-drive of this computer.</FONT></DIV> <DIV><FONT
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size=3D2></FONT> &nbsp;</DIV> <DIV><FONT face=3DArial
size=3D2></FONT> &nbsp;</DIV> <DIV><FONT face=3DArial> One of our newest members
is <STRONG> Barry Hauser</STRONG> -&nbsp;</STRONG>current&nbsp;</STRONG>editor of&nbsp;</STRONG>the <U> Hollow
State Newsletter</U> .&nbsp;</STRONG>&nbsp;</STRONG> Barry lives in East Meadow, but has an = office in Hicksville,
NY (25 miles east of Manhattan).&nbsp;</STRONG> He has = been&nbsp;</STRONG>involved in electronics -- radio, audio
and computer -- since the mid 60's, even a = bit in the late 50's as his following&nbsp;</STRONG>list
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demonstrates.&nbsp; = </FONT></DIV> <DIV>< FONT  
face= 3DArial></FONT> &nbsp;</DIV> <DIV>< FONT face= 3DArial>I am sure many of our  
readers will enjoy this = little 'technical hike' down memory lane as much as I did.&nbsp;< /FONT> Starting  
with = the RAK/RAL military TRF types, then the BC-312, 314, 348, then a few = commercial sets  
like the Hallicrafters SX-28, 42, 62, 71, add&nbsp;< /FONT>the SP-600, = 200s, and a HQ-180AC, and don't  
forget the&nbsp;< /FONT>Racal RA-17C-12.&nbsp;< /FONT></DIV> <DIV>< FONT  
face= 3DArial></FONT> &nbsp;</DIV> <DIV>< FONT face= 3DArial>He has had a few  
portables such as&nbsp;< /FONT>one of = John Bryant's (List member) Zenith Transoceanic, a Grundig, and =  
a&nbsp;< /FONT>Sony.&nbsp;< /FONT> Ooops, forgot the&nbsp;< /FONT>two R-1051s ....make those plain, 2X B versions, = and  
a single G type.</FONT></DIV> <DIV>< FONT face= 3DArial></FONT> &nbsp;</DIV>  
<DIV>< FONT face= 3DArial> Boat anchors, yup.... 8X 390A, a pair of = 390non-As, one 391, and  
a few 392 samples collected over the years.&nbsp;< /FONT> There are a = few "green radios" including TBY,  
AN/GRR-5/R-174, R-808, GRC-106A, = etc.&nbsp;< /FONT></DIV> <DIV>< FONT  
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</FONT></DIV> <DIV>< FONT face= 3DArial></FONT> &nbsp;</DIV> <DIV>< FONT  
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<DIV>< FONT face= 3DArial> I trust someone on the List will help Barry get = his quarter  
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href= 3D"mailto:barry@hausernet.com"> barry@hausernet.com</A> </FONT> </DIV>  
<DIV>< FONT face= 3DArial></FONT> &nbsp;</DIV> <DIV>< FONT  
face= 3DArial> Welcome to the List-</FONT></DIV> <DIV>< FONT  
face= 3DArial></FONT> &nbsp;</DIV> <DIV>< FONT  
face= 3DArial> Greg</FONT></DIV> <DIV>< FONT face= 3DArial  
size= 3D2></FONT> &nbsp;</DIV> <DIV>< FONT face= 3DArial  
size= 3D2></FONT> &nbsp;</DIV></BODY></HTML>

- -----= \_NextPart\_000\_008E\_01C240E4.B2B4A6E0--

Date: Sun, 11 Aug 2002 08:48:29 EDT  
From: Llgpt@aol.com  
Subject: Re: Prem-Rx: New Member: Barry Hauser In a message dated 8/11/02 5:15:32 AM,  
gbailey@mail.sdsu.edu writes:

<< I trust someone on the List will help Barry get his quarter back???? He can be reached at-  
barry@hausernet.com

Welcome to the List-

Greg >>

He can come down here to visit me, then we can try to "double" his money at the casinos!!!

Welcome aboard Barry!

Les Locklear

-----  
Date: Sun, 11 Aug 2002 11:47:07 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Re: Prem-Rx: New Member: Barry Hauser At 08:48 AM 8/11/2002 -0400, Llgpt@aol.com wrote:

> In a message dated 8/11/02 5:15:32 AM, gbailey@mail.sdsu.edu writes:

> > << I trust someone on the List will help Barry get his quarter back???? He > can be reached at barry@hausernet.com

Great to see such esteemed names as Barry and Les on the list. Welcome fellas!.....Walt Salmaniw, Victoria, BC.

-----  
Date: Sun, 11 Aug 2002 19:05:58 -0500  
From: Mike Andrews <mikea@mikea.ath.cx>  
Subject: Re: Prem-Rx: New Member: Barry Hauser On Sun, Aug 11, 2002 at 03:10:51AM -0700, Greg W. Bailey wrote about Barry Hauser:

> But the qualifiers of interest are: a pair of Racal 6790GM both on serial interface and updated firmware, a couple of WJ 8718As, an ITT Mackay 3021A, and a presently \*\*\*silent\*\*\* Debeg 2000.

> > At the moment, he is obsessed with the Debeg 2000 and has been in touch with the remnant of the manufacturer in Hamburg, who recently informed him that the technician who was most familiar with the 2000 retired a few months ago. Barry states that Debeg was bought by Siemens, then Telefunken, and then something else happened. The something else is the problem!

> > In his words; "At the moment, (...the Debeg 2000)...it's performing like a cross between a premium-rx and an electronic slot machine -- something is going on, but I haven't even come up with two cherries and my quarter back. Each time you power up, something else comes up on the frequency display and white noise sometimes with something very faint in the background. It's loaded with CMOS and Schottkey IC's and an 8080 processor which seems to be running hot.

> > I trust someone on the List will help Barry get his quarter back???? He can be reached at barry@hausernet.com

I'm the other Debeg 2000 owner, and working on getting extender cards made for the plug-in cards. This is "non-trivial", as we mathematicians and computer scientists say. It begins to look as though I need to get the RX back from the firm supposedly making the extenders, and to do the work myself.

Add to that merging families and households, and getting married, trying to get the kids in school, getting the present set of resident felines to accept the new resident feline and the quasi- canid thing that my beloved insists on bringing as part of her dowry, and you can see that radio-fixing is taking a back seat for a while.

- -- Mike Andrews mikea@mikea.ath.cx Tired old sysadmin since 1964

-----  
Date: Mon, 12 Aug 2002 22:11:57 -0700  
From: "Don Nelson" <ulformat@teleport.com>  
Subject: Prem-Rx: A few premium receivers available I am thinning my collection - since acquiring a number of Wj8712P's two years ago, these have been collecting dust in the rack. All are working, and

in fact, all were purchased from W J Ford's within the past 4 years. I thought I'd give the guys (and gals) on prem-rx a shot at them before they departed to that auction place.

1) Collins 2050. This was a premium version from WJ Ford. Cherry front panel. Usual 30 memories. I will toss in the muffin fan used to keep this fellow cool (standard hot power supply was an issue with all 2050's) and somewhere I have the small fluorescents that can be used to illuminate the LCDs (per John Bryants website). This was the first of the DSP-receivers, and the 2050 has been as sensitive as the WJ's at picking up weak dx - and this has been proven many times at Grayland by Walt Salimaw.

2) Cubic 3030B. Cited by AMRAD as an outstanding receiver for extremely LF dxing (see their site at <http://www.amrad.org/projects/lf/rx/index.htm> for "Two members have Cubic R-3030 receivers and they perform superbly on LF and VLF. ". The Cubic 3030B is an interesting 3U rack receiver that contains two separate receivers in 1/2 width (note that they cannot, however, be separated physically). You may recall that the Cubic receivers had a somewhat well-known feature of being overly sensitive to frequency entering via the front panel switches. This one, as I recall, could be tamed by entering the MHz, a period and freq. For this reason I suggest that it wasn't just the switches but the hw/sw control(?)

3) Harris 590A. what can I say --- beautiful. Again, one of the super clean ones acquired from W J Ford.

Please contact me directly for pricing and availability. Additional questions gladly answered.

Regretably, due to export restrictions, I won't be able to offer them for shipment outside the USA. Interested parties can contact me regarding particulars. As you'd expect - you'll be responsible for shipping and insurance.

I'll be rechecking them out this weekend to ensure nothing has ensued while sitting unused in rack. All receivers were fully working and will be fully checked prior to closing any deal. Pictures will be available to serious collectors upon request.

I gotta get this shack down to manageable numbers of receivers. Thanks Don Nelson Oregon

-----  
Date: Fri, 16 Aug 2002 05:44:06 -0400  
From: "Thomas A. Adams" <103360.2133@compuserve.com>  
Subject: Prem-Rx: Premium receivers & NON Premium AC power Greetings.

I want to bounce this one off of the group, just in case anyone else is doing what I'm contemplating.

I'm very big on the idea of running radios in the field, away from commercial AC power. With stuff like Icoms, Kenwoods, JRCs, etc. it's no problem; just apply 12 VDC to the provided input. With a Racal RA-6790/GM it's not that simple.

I currently have two juice options.

Sitting in the garage is 400+ pounds of military surplus generator, 110 / 208 three phase, 4 KVA worth of it. It requires a small, 2 wheel trailer to carry it (It's IMPOSSIBLE to lift into the pickup bed!), it's noisy, it burns noxious gasoline... you get the idea. NOT the best possible way to go. Besides... 4 KVA just to provide 75 watts or so for a communications receiver???

The other option...

Currently, I have a small 110 VAC inverter, 100 watts worth. It can be powered by a pair of 6 volt golf cart batteries (big, heavy, deep cycle jobs, but a hell of a lot lighter than the generator), which are kept charged by a pair of Siemens solar panels (53 watts each).

The choice should be simple, but there's a kicker here. The inverter is SQUARE WAVE. Cheap, nasty AC power.



Modified square wave is the preferred method for driving transformers, simple square wave inverters with 50% duty cycle will give rise to higher than normal flux densities in the transformer and possible core saturation.

Regards Chris

-----  
Date: Fri, 16 Aug 2002 12:18:59 +0200  
From: "John Wilson" <johnwilson@freezone.co.uk>  
Subject: FW: Prem-Rx: Premium receivers & NON Premium AC power - -----Original Message-----

From: John Wilson [mailto:johnwilson@freezone.co.uk] Sent: 16 August 2002 12:16 To: Thomas A. Adams  
Subject: RE: Prem-Rx: Premium receivers & NON Premium AC power

Hi Tom, A further point regarding your worries about harmonics. A good quality ac filter of the type used to minimise conducted emissions from switched mode power supplies will help to wipe out higher harmonics. These filters usually kick in at around 100kHz and have seriously good attenuation right through the HF bands. Filter case grounding is important and the filter should be installed right at the inverter output to have best results. Buy the best filter you can afford - the price usually reflects the attenuation performance. John G3PCY

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Thomas A. Adams Sent: 16 August 2002 11:44 To: Premium Rx

Subject: Prem-Rx: Premium receivers & NON Premium AC power

Greetings.

I want to bounce this one off of the group, just in case anyone else is doing what I'm contemplating.

I'm very big on the idea of running radios in the field, away from commercial AC power. With stuff like Icoms, Kenwoods, JRCs, etc. it's no problem; just apply 12 VDC to the provided input. With a Racal RA-6790/GM it's not that simple.

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The choice should be simple, but there's a kicker here. The inverter is SQUARE WAVE. Cheap, nasty AC power.

Sure, it's good for powering soldering irons and the like, but how big a risk am I taking if I plug a microprocessor premium receiver into it?

Has anyone here done it without blowing the rig up? Did the radio run without going squirrely?

In terms of electronic noise, are commercial square wave inverters very offensive? In theory at least, there should be harmonics up the wazoo! Not an attractive prospect if your thing is LF / VLF DXing.



As a precaution to protect the radio's innards, I'm installing MOVs in the inverter (one across the output, and one from each side to ground to nail common mode spikes and switching transients). Hopefully, they'll clip off any leading edge spikes on the output waveform at 130 V.

Has anyone here run premium rigs off of so-called "modified square wave" AC? Those inverters are expensive, but STILL a damned sight cheaper than a pure sine wave inverter (and WORTH it if they'll power a rig without creating the hassle of having to fix blown up logic boards!).

Before I try this crazy thing, I'd appreciate any experience the folks here have had with inverter power and microprocessor based equipment. Horror stories are VERY welcome! < < smile > >

73's,

Tom, W9LBB

Mahon Loomis Memorial Monitoring Station and Irish Setter Retirement Home,  
Sun Prairie, WI

-----  
Date: Fri, 16 Aug 2002 11:15:23 -0400 (EDT)  
From: <steve@clickadeal.com>  
Subject: Re: Prem-Rx: Premium receivers & NON Premium AC power

Hi

QTH 20 miles NW of Boston. We have frequent power failures due to treefall colliding with overhead feeders. Some outages last over 100 hours. My utility cares about its customers.

Have run various gear including premium RX from 300 W "modified sine wave" inverter from discount store. No problems in terms of transients. Suspect that the THD shows up as heat in the reactive parts of the PS; don't think that's a major concern; maybe a few watts.

However, the three (inverters) that I have used generated mondo EMI. I think that the beauty of operating in a remote location might be trashed by the hash. There are some "pure sine-wave" inverters out there which do not have this problem. Seen in the usual net sale places from time to time.

GL,

Steve

N.B. Please tell Mahlon to open key and repolarize; he has a patient waiting for an extraction.

On Fri, 16 Aug 2002, Thomas A. Adams wrote:

> Greetings.

> > I want to bounce this one off of the group, just in case anyone else > is doing what I'm contemplating.

> > I'm very big on the idea of running radios in the field, away from > commercial AC power. With stuff like Icoms, Kenwoods, JRCs, etc. > it's no problem; just apply 12 VDC to the provided input. With a > Racal RA-6790/GM it's not that simple.

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> > > > 73's,

> > Tom, W9LBB

> > Mahon Loomis Memorial Monitoring Station > and Irish Setter Retirement Home,

> > Sun Prairie, WI >

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End of premium-rx-digest V1 #199 \*\*\*\*\*  
Subject: premium-rx-digest V1 #200  
premium-rx-digest Friday, August 30 2002 Volume 01 : Number 200

----- Date: Thu, 22 Aug 2002 12:33:45 EDT  
From: MW1DUJ@aol.com  
Subject: Prem-Rx: JRC NRD525 FRONT PANEL - --part1\_ea.2c9828a7.2a966c69\_boundary

Hi

worth a try, I have just bought a lovely NRD525 receiver, which could really do with a new or used and VGC front panel, anybody got one, or even attached to the rest of a dead receiver? Please help if you can, it would look so nice on my shelf, thanks for looking, Dave

-----  
Date: Thu, 22 Aug 2002 16:34:06 -0700  
From: jan@skirrow.org

Subject: Prem-Rx: HF-2050 Front Panel If anyone needs a front panel including the circuit board, display, encoder, switches etc, this MIGHT be of interest ...

<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1375296976>

I have bought from these folks and have been satisfied. However, you will get no more than he shows, and there is sometimes a certain coyness about the actual condition of an item. Caveat emptor!

Jan

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Sat, 24 Aug 2002 15:51:32 -0400  
From: Geoff Greer <greer86@attglobal.net>  
Subject: Prem-Rx: Norlin / ACL SR2090 Are there any Norlin / ACL SR2090 drivers out there? I've got one up and running and a ton of spares and would to compare notes with other users. Yes, the display LCD does work.

Geoff

-----  
Date: Sat, 24 Aug 2002 18:47:24 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Prem-Rx: New information re HF-2050

Fellas, I've just read the following on the R-1051 list:

To the best of my knowledge, the People's Republic of China isn't interested in radio gear from US government surplus sources, only late model aircraft parts and intelligence related equipment, which as Jim mentions, they have been quietly buying at our surplus sales for years. I live in China part of the year and do business there so I speak with some knowledge of the subject. I have never seen an R-390 or an R-1051 in use at any facility in China or for sale there as surplus. I did find a quantity of new Harris 590's which, they said, were manufactured in China by a Harris facility. The price was about what we would pay here. They were also selling surplus Rockwell 2050's which had been originally purchased directly from Collins Canada through normal channels. Geoff Fors

If this is true, this indeed is interesting information. Upto now, all the information we had indicated that the receivers were manufactured and delivered only to the Canadian Forces. If memory serves me correctly a few units went to Israel and China in a failed attempt to expand markets. Could the Chinese have cloned these receivers?.....Walt. PS: Geoff, are there any photos of these receivers? Are they identical to the Canadian units, or are they modified for Chinese use?

-----  
Date: Sat, 24 Aug 2002 22:46:57 -0400  
From: Ed Tanton <n4xy@earthlink.net>  
Subject: Re: Prem-Rx: New information re HF-2050 Interesting... I have just completed a trade with a private party in China whereby I sent an R-390 to him, and he sent me a NOS/NIB Chinese Army Type 77 solid state-but not-ready-for-primetime-HERE, HF receiver (e.g. all discrete components-no ICs even [that I've noticed in casual examination of the schematics]). With many spares. I have seen a photo of my friend's station, and this is obviously a hobby (boat anchor receivers) for him-since his hamshack is very modern. You can see the receiver at:  
<[http://www.n4xy.com/RCVR\\_Chinese\\_Army.html](http://www.n4xy.com/RCVR_Chinese_Army.html)> .

73 Ed Tanton N4XY <n4xy@earthlink.net>

Ed Tanton N4XY 189 Pioneer Trail Marietta, GA 30068-3466

website: <http://www.n4xy.com>

All emails <IN> & <OUT> checked by Norton AntiVirus with AutoProtect

LM: ARRL QCWA AMSAT & INDEXA; SEDXC NCDXA GACW QRP-ARCI OK-QRP QRP-L #758  
K2 (FT) #00057

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Date: Sun, 25 Aug 2002 17:54:16 -0700

From: Walter Salmaniw <salmaniw@shaw.ca>

Subject: Prem-Rx: Further HF-2050 and China information Fellas, here's some more information directly from Geoff. I'll report anything more that he's able to provide.....Walt.

Hi Walt- The 2050's were not at a price I could afford, so I didn't pay too much attention. I only saw one, it had an English front panel as do most of their imported items. My contact in Beijing told me they had bought them From Rockwell for marine weatherfax use and at the time it didn't seem important so I didn't question him. For all I know they might have come From Toronto Surplus & Scientific ! It's quite possible they are just the few which were marketing attempts by Rockwell and they may have even come via Israel, which is heavily courting business from China. At the time, it was just after that Chinese fighter had collided with our "spy" plane, and the Chinese were very uptight about people asking about military topics. I'll try to ask about them when I get back there. I doubt they are cloning the 2050, but the Chinese are indeed making Harris clones in what appears to be a Harris facility. I think the Chinese surplus Harris 590 receiver clones were about USD \$ 1800 which is actually cheaper than what they usually go for here, but the prospect of dragging something like that all the way back to the USA is daunting, especially having to lug it on a 1600 mile train ride to get to an international airport, with the inevitable detention by police and the third degree about what I have it for. I could have it shipped, but I would like to hold onto my \$ 1800 until I have a radio in-hand ! Rockwell Collins has three facilities in China, the main one is in Beijing, and they are expanding. They are heavily involved in "joint ventures" and "technology sharing" with the Chinese military industrial complex, as is Motorola. This was encouraged by our friend Bill Clinton. Rockwell partnered with Shanghai Avionics Corp. and Shanghai Broadcast Equipment Corp. some time ago to manufacture a broad range of products there (Shanghai produces the highest quality electronic products.) Rockwell is currently making GPS equipment in China, including advanced models for China's military, along with many other defense related products. There just isn't that much commercial demand anymore for HF radios, even in China, especially since their government is spending a fortune laying fiber optic cables throughout the whole country, which they feel is more reliable and secure than radio communications for military operations (yes, I know, how do you hook fiber optic to an armored vehicle in motion or an aircraft !). When I get back to Shanghai I'll ask around about the receivers and see what I can turn up. That will probably be near the end of the year.  
Regards, Geoff

-----  
Date: Fri, 30 Aug 2002 08:42:54 -0700

From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>

Subject: Prem-Rx: New Member- Sergio Sigala (I taly)

Fellow Members:

Sergio Sigala, from Brescia, in the northern part of Italy near Milano, = has become our newest member. Sergio is an Electrical Engineering = student in the process of completing his Thesis.

Like so many foreign applicants, finding a receiver is a challenge, and = thus Sergio is in the 'search' mode for a Premium-Rx device.

Using his words:

"Here in Italy the HF market is losing customers and the surplus sector = doesn't make an exception; vendors are resizing their stocks and it's = difficult to find vintage equipment like these receivers (sorry for the = word "vintage", I simply could not find a better definition). I'm = looking for a premium rx (preferably Racal or Collins) from September of = last year but I didn't find anything interesting in Italy (prices too = high, equipment in poor conditions or sellers not much honestly), and I = don't feel safe ordering these items in foreign countries".

It has been the policy of this List (this is the second time so it isn't = much of a policy yet !) to allow individuals into the membership if they = are in the 'search' mode. Perhaps one of our members could e-mail = Sergio and pass along some words of welcome and information on a = receiver.

Greg

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End of premium-rx-digest V1 #200 \*\*\*\*\*  
Subject: premium-rx-digest V1 #201  
premium-rx-digest Friday, September 6 2002 Volume 01 : Number 201  
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----- Date: Fri, 30 Aug 2002 12:49:28 -0400  
From: "Daniel Gillet" <d.gillet@sympatico.ca>  
Subject: Prem-Rx: JRC NRD-301A

Hi , My name is Daniel Gillet im a new member of this list. Im a current owner of a JRC NRD-301A.I would like to know if somebody = else in the group owns this receiver.

Thank you Daniel VE2BUG

-----  
Date: Fri, 30 Aug 2002 18:18:52 +0100  
From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: 6790 Fiter availability/price?

Can someone please give me some idea of the availability and price of = filters for the 6790? There are some units on sale in the UK minus filters and I'm wondering = if it's worth picking one up.

Regards

Tracey

-----  
Date: Mon, 2 Sep 2002 22:23:02 -0400 (EDT)  
From: Steve Stutman <steve@clickadeal.com>  
Subject: Prem-Rx: Telefunken 1200 RX Hi All,

A friend in Europe has seen a receiver "Model 1200" by Telefunken. It sounds like a Premium RX candidate, but I have little info on same. Does anyone on the list know anything about this?

Any spares to be had?

Repairable without SEM?

Good performance?

If so, very interested in hearing same as well as estimates of fair prices.

Thanks,

Steve KL7JT/1

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Date: Tue, 3 Sep 2002 16:00:41 GMT  
From: "Mr.Qian Wensheng" <hsrf@163.net>  
Subject: Prem-Rx: epoxy resin and material for coating Please attn.purchase department

we are one of largest manufacturer such as LOW-GLOSS CURING AGENT MB68 and LOW TEMPERATURE AND FAST CURING AGENT MB31 and TGIC as well as Epoxy Resin and polyester resin which used for powder coating .The following is detailed information of our products for your reference. 1.LOW-GLOSS CURING AGENT MB68 Appearance:white fine powder melting range:200-225oc Purity:> = 99% Usage:powder coating packing:20Kg/bag, per bag are lined with plastic sheets. price:FOB Shanghai USD5.30/kg.

2.Low TEMPERATURE AND FAST CURING AGENT MB31 Appearance:crystal or flackes in light yellow melting range:85-101 oc purity:> = 95% Usage:powder coating. packing:20kg/bag ,per bag are lined with plastic sheets. price:FOB Shanghai USD5/kg.

3.TGIC(Triglycidyl Isocyanurate) Appearance:white powder Melting range:90-110;æ Epoxy equivalent:< 110 Chlorine:< 1.5% usage:polyester-TGIC powder coating. packing:20kg/carton ,all carton are lined with plastic sheets. price:FOB Shanghai USD5.50/kg.

If you need epoxy resin and polyester resin , I can provide the product. 4.E-12(equivalent to DOW DER663U ,CIBA GT7004,SHELL 3003) Color: 1max EEW(eq/g): 710-870 Softening Point: 88-96;æ Package: 25kgs/bag per bage in kraftpaper bag. Usage: hybrid powder coating price:FOB Shanghai USD1.34/kg

5.polyester resin (equivalent to DSM SP4127) Color: 2max Acid Value(mgKOH/g): 68-72 Softening Point: 98-102;æ TG: 60 Viscosity(Pa.s 150): 500-800 Package: 25kgs/bag per bag in kraftpaper bag Usage: 50:50 hybrid powder coating price:FOB Shanghai USD1.35/kg 6.triphosgene purity:99% min m.p.:79C min package:25kg/drum price:FOB Shanghai USD4.1

Chinese products have good quality and have competitive price,which sell well in EUROPE;çINDIA;çMEXICO;çUSA and other countries.now we are writing to offer you an opportunity to develop trade.If you are interested in establish business relations with us in this line,pls let us know your specific requirements,we shall be pleased to forward samples /catalogues as well as detailed information for your reference,we assure you of our best attention to any inquires from you,and anticipate your promptresponse in this respect.

Best regard Mr.Qian Wensheng HUANGSHAN RUNFAST CHEMICALS(GROUP) CO.,LTD TEL:0086-559-6513788 FAX:0086-559-6519508 Email:rfhg@mail.ahwhppt.net.cn

-----  
Date: Tue, 3 Sep 2002 17:35:24 EDT  
From: Aidehua@aol.com  
Subject: Prem-Rx: Question Regarding WJ HF-1000

Hello to the Group!

Curious to know if anybody has explored the possibility of upgrading the WJ HF-1000 with an 8711 chipset. There are advantages to be had with the latter, and it sure would be nice to make that upgrade. Any input is appreciated!

73, Ed NI6S

-----  
Date: Tue, 03 Sep 2002 19:23:26 -0400  
From: Arthur Shulman <dentist@nornet.on.ca>  
Subject: Re: Prem-Rx: Question Regarding WJ HF-1000

I seem to recall that there was a post on this list some time ago that indicated the cost of the latest chipset for the HF-1000 was in the neighborhood of US\$400.

WJ is no more but their operations have continued under a new name, (BAE?) owned by Marconi PLC of England. Might be interesting to ask them if the 8711 chipset will work as a direct replacement.

Just what are the expected benefits assuming a swap is possible?

Arthur Shulman - -----

Aidehua@aol.com wrote:

> Hello to the Group!

> > Curious to know if anybody has explored the possibility of upgrading > the WJ HF-1000 with an 8711 chipset. There are advantages to be had > with the latter, and it sure would be nice to make that upgrade. Any > input is appreciated!

> > 73, > Ed NI6S

- -----892436354CA449DFCE036003 charset= us-ascii

```
<!doctype html public "-//w3c//dtd html 4.0 transitional//en"> <html> I seem to recall that there was a post on this list some time ago that indicated the cost of the latest chipset for the HF-1000 was in the neighborhood of US$400. <p>WJ is no more but their operations have continued under a new name, (BAE?) owned by Marconi PLC of England. Might be interesting to ask them if the 8711 chipset will work as a direct replacement. <p>Just what are the expected benefits assuming a swap is possible? <p>Arthur Shulman <br>----- <p>Aidehua@aol.com wrote: <blockquote TYPE=CITE> <font face="Arial"> <font size=-1> Hello to the Group!</font> </font> <p><font face="Arial"> <font size=-1> Curious to know if anybody has explored the possibility of upgrading the WJ HF-1000 with an 8711 chipset.&nbsp; There are advantages to be had with the latter, and it sure would be nice to make that upgrade.&nbsp; Any input is appreciated!</font> </font> <p><font face="Arial"> <font size=-1> 73,</font> </font> <br><font face="Arial"> <font size=-1> Ed NI6S</font> </font> </blockquote> </html>
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- -----892436354CA449DFCE036003--

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Date: Thu, 05 Sep 2002 19:42:17 -0700  
From: Al Tipsword <atipsword@gotnet.net>  
Subject: Prem-Rx: Racal RA6790/GM Software Greetings to the list,

I have completed the newest version (v2.1) of my Control Software for the Racal RA6790/GM receiver.

This software provides complete control of all the receivers programmable function plus Data Base, Scanning and Plotting functions. The software is designed to run under Windows.

The software is available for download from my website at:

<http://w6ger.gotnet.net/>

You will find the website also contains a list of the software's features and brief tour of the Menu selections available.

Once you download the software I would suggest viewing the ReadMe and Help files.

If you install and use the software I would appreciate feedback as to the version of Windows you are using and any comments about the software.

AI - W6GER

-----  
Date: Fri, 6 Sep 2002 12:10:26 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Racal RA6790/GM Software Nice front panel! I might try it on my RA6830

> -----Original Message----- >

From: Al Tipsword [SMTP:atipsword@gotnet.net] > Sent: Thursday, September 05, 2002 10:42 PM >  
To: premium-rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Racal RA6790/GM Software

> > Greetings to the list,

> > I have completed the newest version (v2.1) of my Control Software for > the Racal RA6790/GM receiver.

> > This software provides complete control of all the receivers > programmable function plus Data Base, Scanning and Plotting functions. > The software is designed to run under Windows.

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> > <http://w6ger.gotnet.net/>

> > You will find the website also contains a list of the software's > features and brief tour of the Menu selections available.

> > Once you download the software I would suggest viewing the ReadMe and > Help files.

> > If you install and use the software I would appreciate feedback as to > the version of Windows you are using and any comments about the software.

> > AI - W6GER

-----  
Date: Fri, 06 Sep 2002 09:25:52 -0700  
From: Al Tipsword <atipsword@gotnet.net>  
Subject: Re: Prem-Rx: Racal RA6790/GM Software Frank, Thanks... I have no information on the RA6830 and would be very interested to find out if the RA6790 software is compatible with that receiver. If not, then it may be possible to make changes to the software. If you have a manual with the programming information maybe we could compare the commands with the RA6790's

AI - W6GER

Carcia, Frank A. HS wrote: > Nice front panel! I might try it on my RA6830

> > > > -----Original Message----- > >

From: Al Tipsword [SMTP:atipsword@gotnet.net] >

> > >

Subject: Prem-Rx: Racal RA6790/GM Software >

> > > Greetings to the list, >



> > > I have completed the newest version (v2.1) of my Control Software for > > the Racal RA6790/GM receiver. >

> > > < snip >

-----  
Date: Fri, 6 Sep 2002 17:02:59 -0400  
From: "Daniel Gillet" <d.gillet@sympatico.ca>  
Subject: Prem-Rx: rs-422a/rs-423a

- -----= \_NextPart\_000\_000F\_01C255C7.40AE1AC0

Hi group, i need some help about connecting my JRC NRD-301a to my pc. On the back of the radio is a db-15 rs-422a/rs-423a. Somebody have an idea how to connect that to a pc? In the manual they only write which fonction are available in 422 vs 423. Nothing about software or language, speed, terminal type to use. My main interest is to program the 300 channel easily.

PS: SORRY ABOUT MY ENGLISH!!!

Merci Daniel VE2BUG

- -----= \_NextPart\_000\_000F\_01C255C7.40AE1AC0

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</HEAD> <BODY bgcolor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2>Hi group, i
need some help about = connecting my JRC NRD-301a to my pc. On the back of the radio is a db-15
= rs-422a/rs-423a. Somebody have an idea how to connect that to a pc? In the manual they only write
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<DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> PS: SORRY ABOUT MY =
ENGLISH!!!</FONT></DIV> <DIV> &nbsp;</DIV> <DIV><FONT face= 3DArial
size= 3D2> Merci</FONT></DIV> <DIV><FONT face= 3DArial size= 3D2> Daniel
VE2BUG</FONT></DIV> <DIV> &nbsp;</DIV></BODY></HTML>
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- -----= \_NextPart\_000\_000F\_01C255C7.40AE1AC0--

-----  
End of premium-rx-digest V1 #201 \*\*\*\*\*  
Subject: premium-rx-digest V1 #202  
premium-rx-digest Thursday, September 12 2002 Volume 01 : Number 202  
-----

----- Date: Fri, 6 Sep 2002 17:29:26 -0500  
From: "Bob Parnass, AJ9S" <parnass@megsinet.net>  
Subject: Re: Prem-Rx: rs-422a/rs-423a This Antona web page describes RS-422 to RS-232 converters:

<http://www.antona.com/dta6000.htm>

Other converters are offered here:

<http://www.rs485.com/psoftware.html>

I haven't used one.

On Friday 06 September 2002 04:02 pm, Daniel Gillet wrote: > Hi group, i need some help about connecting my JRC NRD-301a to my pc. On the > back of the radio is a db-15 rs-422a/rs-

423a. Somebody have an idea how to > connect that to a pc? In the manual they only write which function are > available in 422 vs 423. Nothing about software or language, speed, terminal > type to use. My main interest is to to program the 300 channel easily.

> > PS: SORRY ABOUT MY ENGLISH!!!

> > Merci > Daniel VE2BUG

- - -

=====  
===== Bob Parnass, AJ9S Linux User  
http://parnass.com

-----  
Date: Sat, 07 Sep 2002 10:10:49 -0500  
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>  
Subject: Prem-Rx: RS-422 to RS-232 - \_1984092==\_.ALT ; format=flowed

There is info on rolling your own RS-422 to RS-232 on the Z3801 GPS time base pages.

[http://www.realhamradio.com/GPS\\_Frequency\\_Standard.htm](http://www.realhamradio.com/GPS_Frequency_Standard.htm)

Look near the bottom for the "K8CU RS-422 interface"

Terry O'

At 17:02 2002-9-6 -0400, you wrote: > Hi group, i need some help about connecting my JRC NRD-301a to my pc. On > the back of the radio is a db-15 rs-422a/rs-423a. Somebody have an idea how > to connect that to a pc? In the manual they only write which fonction are > available in 422 vs 423. Nothing about software or language, speed, terminal > type to use. My main interest is to to program the 300 channel easily.

> > PS: SORRY ABOUT MY ENGLISH!!!

> > Merci > Daniel VE2BUG >

- \_1984092==\_.ALT

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<html> There is info on rolling your own RS-422 to RS-232 on the Z3801 GPS time base
pages.<br><br> <a href="http://www.realhamradio.com/GPS_Frequency_Standard.htm"
eudora="autourl"> http://www.realhamradio.com/GPS_Frequency_Standard.htm</a><br><br>
Look near the bottom for the &quot;K8CU RS-422 interface&quot;<br><br> Terry O'<br><br>
<br><br> At 17:02 2002-9-6 -0400, you wrote:<br> <blockquote type= cite class= cite
cite> <font face= "arial" size= 2> Hi group, i need some help about connecting my JRC NRD-301a to
my pc. On the back of the radio is a db-15 rs-422a/rs-423a. Somebody have an idea how to connect that
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ENGLISH!!!</font><br> &nbsp;<br> <font face= "arial" size= 2> Merci</font><br> <font
face= "arial" size= 2> Daniel VE2BUG</font><br> &nbsp;</blockquote></html>
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- \_1984092==\_.ALT-

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Date: Sun, 8 Sep 2002 14:26:56 +0200  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: Wanted !

- \_NextPart\_000\_0038\_01C25743.C9395BC0

Hi All,

Looking for a 6 khz IF filter as used in R&S EK-070/071 and plessey = receivers (1.4 mHz IF), I'm also interested to hear if anybody has a = Plessey 2280 for sale.

Regards,

Herbert

- -----\_NextPart\_000\_0038\_01C25743.C9395BC0

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content= 3D"MSHTML 5.00.2614.3500" name= 3DGENERATOR> <STYLE> </STYLE>
</HEAD> <BODY bgColor= 3D#ffffff> <DIV> <FONT face= 3DArial size= 3D2> Hi
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<DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Regards,</FONT></DIV>
<DIV> &nbsp;</DIV> <DIV> <FONT face= 3DArial size= 3D2> Herbert</FONT></DIV>
<DIV> &nbsp;</DIV></BODY></HTML>
```

- -----\_NextPart\_000\_0038\_01C25743.C9395BC0--

Date: Tue, 10 Sep 2002 11:05:15 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Morris Odell, MD (Australia)

- -----\_NextPart\_000\_0025\_01C258B9.F147BE00

Fellow Members:

Please welcome Morris Odell to our List. Morris started his vocational = life as an electrical engineer but later switched to medicine. = Presently, he is a forensic physician in Melbourne, Australia. BUT, = even though a deft hand with a scalpel, he also knows how to use a = soldering iron ...

He reports he received his ham license, VK3DOC, in 1965 at the age of 16 = (unlike other countries, Australia requires a person to be 16 before = being licensed). He has always enjoyed owning, restoring, and operating = quality communications receivers. Some of the radios he has restored = (and are in his collection) are:

EAC R390A with CV-157 ISB converter & Singer panadaptor, Military R392, = Collins 51J4 with Singer panadaptor, Murphy B40, Racal RA-17 with RA-66 = panadaptor and RA98 & RA121 ISB adaptors, Eddystone 680X, 770U and 770R = (the last with matching panadaptor), AWA CR-6B (Australian), TCA ACAS = 16303 (elaborate Australian naval boatanchor), TCA R5223 (Australian = military radio with some similarities to 51J4), AR7 (Australian copy of = HRO), Hallicrafters SX-28, RCA AR-88D, plus a basket full of RTTY = goodies.

It should also be noted that Morris belongs to a unique group that = builds electronic clocks based on microprocessor/controllers and unusual = displays. A recent project uses 50 year old incandescent displays. Each = one is about the size of a matchbox and has 10 lamps which edge light = glass sheets with engraved numbers. The display is multiplexed and the = whole thing is run by a microcontroller. A separate crystal oscillator = on the chip runs the clock function, and is also used to generate = various alarm tones.

If this is not enough, he also collects and restores Tektronix scopes.. = . . . . AND . . . . at present, he is modifying a dot-matrix printer to = wrap coils. The unit will be controlled by a microcontroller.

You can drop Morris an e-mail at: [MorrisO@vifp.monash.edu.au](mailto:MorrisO@vifp.monash.edu.au)



face= 3DArial size= 3D2> Daniel VE2BUG< /FONT> < /DIV>  
< DIV> &nbsp;< /DIV> < /BODY> < /HTML>

- -----=\_NextPart\_000\_0007\_01C258F0.61CFD140--

-----  
Date: Tue, 10 Sep 2002 22:24:45 -0500  
From: "Joe Watson" <wwatson5@cox.net>  
Subject: Prem-Rx: Question re WJ-8716

- -----=\_NextPart\_000\_000A\_01C25918.DDD13E00

charset= "Windows-1252"

What is the difference between the WJ-8716 and WJ-8718? Is the WJ-8716 older?

Joe Watson

- -----=\_NextPart\_000\_000A\_01C25918.DDD13E00

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< /HEAD> < BODY bgColor= 3D#ffffff> < DIV> < FONT face= 3DArial size= 3D2> What is the  
difference between the = WJ-8716 and WJ-8718?< /FONT> < /DIV> < DIV> < FONT  
face= 3DArial size= 3D2> Is the WJ-8716 older?< /FONT> < /DIV> < DIV> < FONT face= 3DArial  
size= 3D2> < /FONT> &nbsp;< /DIV> < DIV> < FONT face= 3DArial size= 3D2> Joe  
Watson< /FONT> < /DIV> < /BODY> < /HTML>

- -----=\_NextPart\_000\_000A\_01C25918.DDD13E00--

-----  
Date: Wed, 11 Sep 2002 09:17:03 -0400  
From: Mark Donaldson <mark.donaldson@third-rail.net>  
Subject: RE: Prem-Rx: Question re WJ-8716

- -----\_=\_NextPart\_001\_01C25995.84DB29F0

charset= "windows-1252"

Joe,

I'll let others add to my comments and correct me if I'm wrong but there appears to be no time difference between the two models. The 8716 was designed for TEMPEST applications and thus has different backplane connectors for the audio out (BNC rather than terminal strip) and it does not have a front panel line level gain control, all these items were apparently sources for RF egress. Some perhaps most 8716s also had screening over the front panel meter and frequency display, I have seen examples of 8716s with and without the screening. As far as I know the boards internal to the receiver are the same whether it is an 8716 or 8718 this probably also applies to the 8718A and 8709.

Mark Donaldson

- -----Original Message-----

From: Joe Watson [mailto:wwatson5@cox.net] Sent: Tuesday, September 10, 2002 11:25 PM To: Premium RX

Subject: Prem-Rx: Question re WJ-8716

What is the difference between the WJ-8716 and WJ-8718? Is the WJ-8716 older?

Joe Watson

- -----\_ = \_NextPart\_001\_01C25995.84DB29F0

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face= Arial color= #0000ff size= 2> Joe,</FONT></SPAN></DIV> <DIV><SPAN  
class= 219081013-11092002><FONT face= Arial color= #0000ff  
size= 2></FONT></SPAN> &nbsp;</DIV> <DIV><SPAN class= 219081013-

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<DIV><SPAN class= 219081013-11092002><FONT face= Arial color= #0000ff  
size= 2></FONT></SPAN> &nbsp;</DIV> <DIV><SPAN class= 219081013-

11092002><FONT face= Arial color= #0000ff size= 2> Mark

Donaldson</FONT></SPAN></DIV> <BLOCKQUOTE dir= ltr style= "MARGIN-RIGHT: 0px">

<DIV class= OutlookMessageHeader dir= ltr align= left><FONT face= Tahoma size= 2>-----  
Original Message-----<BR><B>

From:</B> Joe Watson [mailto:wwatson5@cox.net]<BR><B> Sent:</B> Tuesday, September 10,  
2002 11:25 PM<BR><B> To:</B> Premium RX<BR><B>

Subject:</B> Prem-Rx: Question re WJ-8716<BR><BR></FONT></DIV> <DIV><FONT  
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<DIV><FONT face= Arial size= 2> Is the WJ-8716 older?</FONT></DIV> <DIV><FONT  
face= Arial size= 2></FONT> &nbsp;</DIV> <DIV><FONT face= Arial size= 2> Joe  
Watson</FONT></DIV></BLOCKQUOTE></BODY></HTML>

- -----\_ = \_NextPart\_001\_01C25995.84DB29F0--

Date: Wed, 11 Sep 2002 09:13:29 -0400

From: "Barry Hauser" <barry@hausernet.com>

Subject: Re: Prem-Rx: Question re WJ-8716 Hi Joe & list:

I have a couple of 8716's. My understanding is that the 8716 and 8718 are basically the same, with  
the exception of the type of connectors on the back panel. The 8716 has all BNC's, while the 8718 has  
a mix of BNC's and terminal strips. The 8718 also goes by the military designation of AN/URR-74.

It doesn't appear that one is newer than the other. It's more like they're variants that were  
manufactured concurrently for the most part. I'm using an 8718 manual, which is all I could find. I  
haven't noticed any differences other than the back panel connectors.

I'd also appreciate some more info on this, and confirmation or correction on the above.

Barry

- ----- Original Message -----

From: Joe Watson To: Premium RX Sent: Tuesday, September 10, 2002 11:24 PM

Subject: Prem-Rx: Question re WJ-8716

What is the difference between the WJ-8716 and WJ-8718? Is the WJ-8716 older?

Joe Watson

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Date: Wed, 11 Sep 2002 14:21:49 -0500

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>

Subject: Prem-Rx: WJ-8716 vs 8718 - \_918120==\_ .ALT ; format=flowed

My understanding is the same as Mark's. WJ did this on the 8617 and 8618 as well. The boards are identical. The 8618 is just in a better RF sealed box than the 8617.

The variant numbers are another matter. For example, a WJ-8617B-15 has a radically different option configuration than a WJ-8618B-15. I suspect the 8716 and 8718 can diverge in the same way. WJ stuff is so highly customizable that buying one sight unseen is a risky proposition. I have purchased two WJ-8617/8 series radios that had a different array of option cards, filters and demods than when they left the factory.

Best, Terry O'

At 09:17 2002-9-11 -0400, you wrote: > I'll let others add to my comments and correct me if I'm wrong but there > appears to be no time difference between the two models. The 8716 was > designed for TEMPEST applications and thus has different backplane > connectors for the audio out (BNC rather than terminal strip) and it does > not have a front panel line level gain control, all these items were > apparently sources for RF egress. Some perhaps most 8716s also had > screening over the front panel meter and frequency display, I have seen > examples of 8716s with and without the screening. As far as I know the > boards internal to the receiver are the same whether it is an 8716 or 8718 > this probably also applies to the 8718A and 8709.

- \_918120==\_ .ALT

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- \_918120==\_ .ALT-

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Date: Wed, 11 Sep 2002 18:12:24 -0500  
From: "Joe Watson" <wwatson5@cox.net>  
Subject: Re: Prem-Rx: WJ-8716 vs 8718

- -----=\_NextPart\_000\_0026\_01C259BE.C79738F0

Thanks for the insight provided by all.

Joe Watson ----- Original Message -----

From: Terry O'Laughlin To: Premium-Rx@KAHUNA.SDSU.EDU Sent: Wednesday, September 11, 2002 2:21 PM

Subject: Prem-Rx: WJ-8716 vs 8718

My understanding is the same as Mark's. WJ did this on the 8617 and = 8618 as well. The boards are identical. The 8618 is just in a better = RF sealed box than the 8617.

The variant numbers are another matter. For example, a WJ-8617B-15 = has a radically different option configuration than a WJ-8618B-15. I = suspect the 8716 and 8718 can diverge in the same way. WJ stuff is so = highly customizable that buying one sight unseen is a risky proposition. = I have purchased two WJ-8617/8 series radios that had a different array = of option cards, filters and demods than when they left the factory.

Best, Terry O'

At 09:17 2002-9-11 -0400, you wrote:

I'll let others add to my comments and correct me if I'm wrong but = there appears to be no time difference between the two models. The 8716 = was designed for TEMPEST applications and thus has different backplane = connectors for the audio out (BNC rather than terminal strip) and it = does not have a front panel line level gain control, all these items = were apparently sources for RF egress. Some perhaps most 8716s also had = screening over the front panel meter and frequency display, I have seen = examples of 8716s with and without the screening. As far as I know the = boards internal to the receiver are the same whether it is an 8716 or = 8718 this probably also applies to the 8718A and 8709.

- -----=\_NextPart\_000\_0026\_01C259BE.C79738F0

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</HEAD> <BODY bgColor= 3D#ffffff> <DIV><FONT face= 3DArial size= 3D2> Thanks for the
insight provided by = all.&nbsp; </FONT></DIV> <DIV><FONT face= 3DArial
size= 3D2></FONT> &nbsp;</DIV> <DIV><FONT face= 3DArial size= 3D2> Joe
Watson</FONT></DIV> <BLOCKQUOTE dir= 3Dltr style= 3D"PADDING-RIGHT: 0px;
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From:</B> <A title= 3Dterryo@wort-fm.terracom.net href= 3D"mailto:terryo@wort-
fm.terracom.net"> Terry O'Laughlin</A> = </DIV> <DIV style= 3D"FONT: 10pt
arial"><B> To:</B> <A = title= 3DPremium-Rx@KAHUNA.SDSU.EDU =
href= 3D"mailto:Premium-Rx@KAHUNA.SDSU.EDU"> Premium-Rx@KAHUNA.SDSU.EDU</A> =
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- -----=\_NextPart\_000\_0026\_01C259BE.C79738F0--

Date: Wed, 11 Sep 2002 20:37:33 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Gilles Masson, (Canada)

- -----=\_NextPart\_000\_02E4\_01C259D3.0EBAF460

Fellow Members:

Gilles Masson, licensed since 1964 as VE2AMN, joins our List. Our = newest member lives in Beloeil, Qu= E9bec, 15 miles south-east of = Montr= E9al. He admits that he is a "receiver nut" since the early = 1950's (ed: sounds normal to me, what's say gang?).

Typically he listens more than sends, and when doing so he uses: = RA6790/GM, RA6778C, Drake R8, R-4B, R-4C, Racal RA-17C12, Rycom VLF, = WJ-8730 VHF, Nems-Clarke 1907 VHF. He confesses there is a Collins = KWM-2 within arms reach.

In the past he has operated a 2050, but he rates his 6790 and 6778 his = favorites!

You can drop Gilles an e-mail at: VE2AMNgilmasson@sympatico.ca

- -----=\_NextPart\_000\_02E4\_01C259D3.0EBAF460

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content= 3D"MSHTML 5.50.4134.600" name= 3DGENERATOR> <STYLE></STYLE>
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</A>< BR></DIV></BODY></HTML>
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- -----=\_NextPart\_000\_02E4\_01C259D3.0EBAF460--

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Date: Wed, 11 Sep 2002 20:43:02 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: Receiver Types- Nems-Clarke

- -----=\_NextPart\_000\_02F1\_01C259D3.D2C39600

Fellow Members:

Will List members who own or operate a Nems-Clarke receive please bounce = this e-mail back to me. I would like to know how many of these radios = there are in our membership.

Thank you

Greg Bailey San Diego

- -----=\_NextPart\_000\_02F1\_01C259D3.D2C39600

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Diego</DIV> </BODY> </HTML>
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- -----=\_NextPart\_000\_02F1\_01C259D3.D2C39600--

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Date: Thu, 12 Sep 2002 16:08:29 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: New Member: Gilles Masson, (Canada)

- -----=\_NextPart\_001\_01C25A98.29A0D450

Receiver nut since the 50's sounds quite normal. I was about 3 when = I could reach the band switch on my Grand Mother's AM / SW floor model. She got quite upset when I pulled out the turn table drawer. She = was afraid I would break something. Even with the short internal antenna I was hooked at an early age. = Maybe I should blame her for my basement full of ballast. She listened to Bob Steel every morning of my life on WTIC 1080 AM. = I think he is pushing '90 and still does a program once a month. I remember her warning me to put the radio back on 1080 when I was = done surfing.

- -----Original Message-----

From: Greg W. Bailey [mailto:gbailey@mail.sdsu.edu] Sent: Wednesday, September 11, 2002 11:38 PM  
To: Premium-Rx@kahuna.sdsu.edu  
Subject: Prem-Rx: New Member: Gilles Masson, (Canada)

Fellow Members:

Gilles Masson, licensed since 1964 as VE2AMN, joins our List. Our = newest member lives in Beloeil, Qu= E9bec, 15 miles south-east of Montr= E9al. = He admits that he is a "receiver nut" since the early 1950's (ed: sounds normal = to me, what's say gang?).





Date: Fri, 13 Sep 2002 01:08:35 +0000  
From: "Greg Bailey" <mem4us@hotmail.com>  
Subject: Prem-Rx: Premium-Rx Spam <html><div style='background-color:'><DIV>Fellow Members:</DIV> <DIV>&nbsp;</DIV> <DIV>We were just spammed by Mr.Qian Wensheng &lt;<A href="mailto:hsrf@163.net">hsrf@163.net</A>&gt; regarding coating material.&nbsp;</DIV> <DIV>&nbsp;</DIV> <DIV>I was of the opinion this was a closed List and membership is required to post.&nbsp;</DIV> Evidently, we got a 'digital hole in the fence' as the&nbsp;>above individual is not a member.&nbsp;</DIV> <DIV>&nbsp;</DIV> <DIV>This is only the second or third spam we have experienced in our three, soon to be fourth, year of operation.</DIV> <DIV>&nbsp;</DIV> <DIV>I apologize, and will look into how this happened.&nbsp;</DIV> <DIV>&nbsp;</DIV> <DIV>Greg Bailey</DIV> <DIV>San Diego</DIV></div><br clear=all><hr>MSN Photos is the easiest way to share and print your photos: <a href='http://g.msn.com/1HM1ENUS/c156??PI=44364'>Click Here</a><br></html>

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**End of premium-rx-digest V1 #202 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #203**  
**premium-rx-digest Monday, September 23 2002 Volume 01 : Number 203**  
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----- Date: Thu, 12 Sep 2002 21:44:04 EDT  
From: Ka9p@aol.com  
Subject: Prem-Rx: 590A - --part1\_131.1396e465.2ab29ce4\_boundary

A friend is considering buying a Harris 590A. Is there anything in particular to look out for on these beasts? - I've listened to a couple and thought they were pretty nice, but don't have a clue what to look out for, either as potential problems or options. Thanks for any thoughts. Scott

--part1\_131.1396e465.2ab29ce4\_boundary

< HTML> < FONT FACE= arial, helvetica> < FONT SIZE= 2 FAMILY= "SANSERIF" FACE= "Arial" LANG= "0"> A friend is considering buying a Harris 590A.&nbsp;</FONT> Is there anything in particular to look out for on these beasts? - I've listened to a couple and thought they were pretty nice, but don't have a clue what to look out for, either as potential problems or options.&nbsp;&nbsp;</FONT> Thanks for any thoughts.&nbsp;</FONT> Scott</HTML>

--part1\_131.1396e465.2ab29ce4\_boundary--

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Date: Thu, 12 Sep 2002 21:47:08 -0700  
From: Walter Salmaniw <salmaniw@shaw.ca>  
Subject: Re: Prem-Rx: epoxy resin and material for coating At 08:34 AM 9/13/2002 +0000, Mr.Qian Wensheng wrote: >Please attn.purchase department

>> we are one of largest manufacturer such as LOW-GLOSS CURING AGENT MB68 and >LOW TEMPERATURE AND FAST CURING AGENT MB31 and TGIC as well as Epoxy Resin >and polyester resin which used for powder coating .The following is >detailed information of our products for your reference

**Second spam I've received from this same individual. Can't we filter out this s\*&t?.....Walt.**

-----  
Date: Fri, 13 Sep 2002 15:03:53 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: Spam Test, delete this message

- -----=\_NextPart\_000\_0088\_01C25B36.C6457EC0

This is a test.

- -----=\_NextPart\_000\_0088\_01C25B36.C6457EC0

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- -----=\_NextPart\_000\_0088\_01C25B36.C6457EC0--

Date: Sun, 15 Sep 2002 03:10:43 EDT

From: GandalfG8@aol.com

Subject: Prem-Rx: Racal RA1794 - --part1\_43.118fd9bb.2ab58c73\_boundary

Hi All I need some information on the Racal RA1794 and hope somebody here may be able to help or to point me in the right direction. I only have the receiver itself so far, no separate controller etc, so am having to operate it from the keypad. This is a bit "trial and error" based on what the last owner told me and what I'm gradually working out for myself I really need the manual but, for now, any information on keypad operation and on the front panel audio and control connectors would be very useful, as would anything on the remote control protocol. One of the internal cards is marked "score interface" so it seems reasonable to assume it uses that, in one variatiuon or another. I could also do with some assistance on fault codes. This set doesn't pause to run through an obvious BITE test when first switched on but there is a key combination that will run a test routine. Normally this seems to be ok and the set functions without problem. After about 3 hours running the fault indicator starts flashing and the test routine then reports what seems to be error 11. If the set is turned off at this stage the error will clear for a few minutes but soon returns. I suspect it's related to internal temperature, even if not directly, and/or voltage levels. The set continues to operate without any other problem as far as I can tell. The previous owner had mentioned having this problem with his RA1796 but not on this receiver so my first instinct was to blame loading and temperature effects on the external PSU, this thing is quite thirsty for a receiver, but that doesn't seem to be the case. I suspect the "fault" is nothing major but would like to know what's going on. Other than that this is looking so far to be a very nice receiver, whether on HF utilities or VHF FM broadcasts. Any information would be much appreciated regards Nigel G8PZR

- --part1\_43.118fd9bb.2ab58c73\_boundary

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--part1\_43.118fd9bb.2ab58c73\_boundary--

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Date: Sun, 15 Sep 2002 19:06:32 -0700

From: Ron Ott <ronott@sbcglobal.net>

Subject: Prem-Rx: Newly acquired RF-590A and LSB filters for Racal 6790/GM I am new to the List, so forgive my transgressions if I make any.

First, I've been looking for the USB/LSB filter pair for a Racal 6790/GM. They seem to be on the endangered species list as I've not seen any for sale in years. While the Racal is a fine receiver, having to retune the BFO when I switch sidebands with a 3.4 kHz centered filter and add two numbers to get the center frequency is a pain.

Second, I just acquired a very clean Harris RF-590A with a problem. I'll have it this week, and if I can't find the solution I'll be throwing up an SOS to more experienced hands than mine with this receiver. Signals are way down and there is a lot of "static" that is or appears to be external. I strongly suspect a poor connection in the signal chain. The unit is nearly new in appearance and I suspect it was pulled from service with this problem. It's coming with a manual, thank goodness.

Ron Ott (aka W6XY) Pleasanton, CA

-----  
Date: Sun, 15 Sep 2002 21:55:24 -0500

From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>

Subject: Prem-Rx: LSB filters for Racal 6790/GM I found a pair of 2.3 kHz Collins 455 MHz USB/LSB filers in the typical small rectangular package. (Hamfest, \$5 each) I made a carrier for each with an unetched PC board, some #10 wire for the guide pins and #20 solid From the filter high terminal to the Racal socket. The receiver swept them fine as-is. Then I used the Collins data to pad the input and output capacitance right on the carrier board to perfect the match. I have heard that you aren't supposed to mix mechanical and crystal filters in the 6790, but I'm very pleased with how things work.

By the way. If you put the 3.4kHz filter in slot 1, the receiver BITE should sweep it and automatically offset the BFO for USB/LSB operation.

Terry O'

-----  
Date: Sun, 15 Sep 2002 23:58:18 -0600

From: Rob & Terri Sherwood <rob@sherweng.com>

Subject: Re: Prem-Rx: LSB filters for Racal 6790/GM I have a combination of crystal, mechanical and ceramic filters in my 6790/GM. Since the stock 3.24 kHz is too wide a lot of the time for amateur radio, I installed a 2.4 kHz filter, with custom adapter, that was originally designed for a Kenwood transceiver. Then a pair of Collins LSB/USB 3.1 kHz mechanical filters with a similar set of adapters, then finally some 9 pole and 15 pole ceramic filters for medium and wider AM bandwidths up to 8 kHz with shape factors of about 1.5:1. All that was necessary was to put in the proper series and shut resistor values to both match the filter and provide a nominal insertion loss.

Terry O'Laughlin wrote:

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> > By the way. If you put the 3.4kHz filter in slot 1, the receiver BITE > should sweep it and automatically offset the BFO for USB/LSB operation.

> > Terry O'

-----  
Date: Mon, 16 Sep 2002 08:51:20 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: LSB filters for Racal 6790/GM hi All, Racal has a special filter board for the RA6830 that has 2 crystal and 3 mechanical filters. I think both receivers use a similar circuit in the filter area so I bet mixing them is no problem. I have found the mechanical filters have a bit less loss though. Racal used different series parallel resistors at each filter input to balance the loss in this special board. fc

-----  
Date: Mon, 16 Sep 2002 09:02:41 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: LSB filters for Racal 6790/GM

Hi

My best performance gain for filtering was when I series connected two sets of filters. The RA6830 filter module is set up for crystal filters. The mechanical filters are much shorter so two modules can be stacked with a MMIC amplifier stuffed between them. A small harness was built to interface power and control to the second module. You guys with RA6790s have plenty of room near the power supply to pull it off. Gee I bet a RA6830 filter module could be mounted there. Only 5 filters and a bypass though. fc

-----  
Date: Tue, 17 Sep 2002 10:55:13 -0400

From: Mark Donaldson <mark.donaldson@third-rail.net>

Subject: Prem-Rx: HF 2050 Manual Needed Greetings,

**I have started to embark on a project to bring an abused HF 2050 back to life and am in need of a service manual, I will be happy to pay for reproduction costs or if somebody in the New England area has a manual they would be willing to lend me I will do the photo copying myself. The people on this list are great, I know somebody will come through.**

**Thanks,**

**Mark Donaldson**

-----  
Date: Wed, 18 Sep 2002 08:58:21 -0400

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: Prem-Rx: Racal RA6830 tune up procedure Hi All, I shared the RA6830 tune up procedure with a number of people when Gary Wingerd found me a copy. I feel there is an error in a gain measurement. I tried the procedure on a number of receivers and have come to this conclusion. The procedure tells the operator to inject a - 80 dBm signal into the receiver input and measure the output of the A10 filter module at J3. The procedure says you should measure greater than - 43 dBm. This is a lot of gain and I have never been able to hit that number. The mistake I made was to set the gain of the A11 stage ahead of the second mixer wide open and move on. This is a mistake



that causes two problems. 1 The S Meter Bar display doesn't track properly. 2. You hear lots of back ground digital noise in the radio. I suspect the close in dynamic range also suffers. I tried a different approach with one of my problem units. I reduced the A11 gain to the lowest level that didn't hurt the radio MDS. Then I tuned up the IF/AGC per the procedure. The gain of A9 was now set to maximum with the agc at 8.5 volts for a - 83 dBm input signal. The Gain between the antenna and A10 J3 was measured at -62 dBm with - 80 dBm at the input. The Receiver MDS remained at about -127 dBm CW with 400 Hz. filter. The digital noise was close to the noise floor when the 6.8 and 16 KHz filters were selected. The digital noise was below the noise floor with the narrow filters. The tracking of the S meter is now right on the money. I tried a Filter board with mechanical filters that allowed me to reduce the A11 gain a bit further. I'm thinking a better impedance match at the input of A9 would allow even further gain reduction in the first I.F. 18 dB of gain ahead of the second I.F. sounds like much better gain distribution than 37 dB. There are 3 trim pots on the A9 second IF board that are adjusted to set up the gain and AGC. I modified that part of the procedure slightly. I will post that when I have duplicated it a couple of times. It was much easier than the procedure and seemed to get to the correct settings. Yep bite passed a number of times over a 3 hour period. I will retest the unit at turn on to verify it is still working. I'm using 6803 software with the older bite that does a lot more testing than newer versions. tweak on,

fc

-----  
Date: Wed, 18 Sep 2002 11:37:36 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Warren Ziegler (USA)

**Fellow Members:**

Warren Ziegler, NY2H, has joined our List. He first obtained his novice = in 1974 using the calls WN2QQR.

At present he operates a Drake RR-3, a Racal 6830JD and an Eddystone = 1650/6. One radio in his collection is a Rohde & Schwarz (EK-07/D2) = which incorporated a vacuum tube PLL.

Our newest member is active in HF and VHF working mostly in the AM mode = of operation. When off the air, he is Vice President of Technology for = Acumentrics, a fuel cell company near Boston.

You can e-mail our newest member at: [wziegler@ix.netcom.com](mailto:wziegler@ix.netcom.com)

Greg

-----  
Date: Wed, 18 Sep 2002 15:00:39 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: New Member: Warren Ziegler (USA)

Great, Warren can join the Premium users rag chew at Hostraders in a few weeks.

-----  
Date: Thu, 19 Sep 2002 06:55:57 +0400  
From: "JEAN-PHILIPPE.LEBON" <JEAN-PHILIPPE.LEBON@wanadoo.fr>  
Subject: Re: Prem-Rx: Racal RA1794

hello nigel , i own the 1792 service manual and i do not know if it might be of any = help : drop me a line accordingly . regarding your 1794 flashing fault = , i encountered the same pblem with my 1792

and i could cure it on ( = smoothly ) pressing the eproms located on the the right side of the rx ( = switched off ) ! it was a matter of bad connection ! 73s jean philippe .

-----  
Date: Thu, 19 Sep 2002 21:31:04 -0400  
From: Ahmet Gundes <ahmetg@eltronik.com>  
Subject: Prem-Rx: WJ-8716 Hello everyone,

I'm looking for some detailed specs on the WJ-8716. If anyone can email me whatever possible it would be greatly appreciated. I also would like to contact those who own this or similar WJ sets as I wonder how it compares to Harris 590A and Racal sets. Also, I wonder what type of options are available on this set.

Thank you. A. Gundes

-----  
Date: Mon, 23 Sep 2002 22:06:27 +0100  
From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: Harris module A 19 This doesn't mean much to me but if anyone is interested in one, Helmut-Singer are selling them brand new for about \$150

Here's what it says on their web site

The Harris module A 19 is an accessory for the professional shortwave receiver Harris RF 591 A (military designation R 2368/URR). It is an automatically tuned bandpass filter, providing 20 dB attenuation +/- 10% from tuned frequency, frequency range 2...29,99 MHz. Furthermore, a switchable lowpass filter with cut-off frequency 2 MHz or a lowpass filter with cut-off 600 kHz is selectable. It is driven by a serial data word, DC supply + 15 V and + 5 V. Insertion loss is 6 dB maximum (0,6...30 MHz), 4 dB max. below 0,6 MHz. Furthermore it contains an input protection circuit: signal levels above 30 V RMS at the antenna activate a protection circuit that opens the antenna input circuit and grounds the receiver side, protecting internal components. Brand new and originally packed, with complete manual copy

Tracey

-----  
End of premium-rx-digest V1 #203 \*\*\*\*\*  
Subject: premium-rx-digest V1 #204  
premium-rx-digest Saturday, September 28 2002 Volume 01 : Number 204  
-----

----- Date: Tue, 24 Sep 2002 18:24:52 +0100  
From: "Chuck Urmson" <chucku@ieee.org>  
Subject: RE: Prem-Rx: Harris module A 19 Hi Tracey,

I bought one of these and everything Helmut-Singer say is true. But, and it is a big but, the manual does not have any information on the protocol and messages used to drive the Pre-selector. Since this is a serial interface it presents a bit of a problem.

Has anyone on the list managed to work out what the messages are? In particular is it described in the complete RF-590 manual?

Regards, Chuck Urmson

- -----Original Message-----

From: owner-premium-rx@kahuna.sdsu.edu [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Tracey Gardner Sent: 23 September 2002 22:06 To: Premium-Rx@kahuna.sdsu.edu  
Subject: Prem-Rx: Harris module A 19

This doesn't mean much to me but if anyone is interested in one, Helmut-Singer are selling them brand new for about \$150

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Tracey

-----  
Date: Tue, 24 Sep 2002 19:23:50 -0600  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: Prem-Rx: High end indeed Did any other listmembers note the recently offered:

Watkins Johnson WJ8940B Receiving System  
(<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1768454826>)

or

Watkins Johnson RASP Surveillance Spy Radio  
(<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1381551642>)

At the risk of sounding understated, this is really cool gear.

The descriptions and pictures are worth looking at just for the drool factor alone.

Shaun

- - - smerriga@compusmart.ab.ca

-----  
Date: Tue, 24 Sep 2002 20:17:57 -0700  
From: "John Miles" <jmiles@pop.net>  
Subject: RE: Prem-Rx: High end indeed Interesting stuff. I know eBay teasers are frowned-upon here, but I wish someone had given the list a heads-up on these particular auctions (of course, then I couldn't have afforded them anyway!)

I just auctioned a Tek 494P for around the price of these two combined, and would have considered it a more-than-fair trade.

- - - jm

> Did any other listmembers note the recently > offered:

> > Watkins Johnson WJ8940B Receiving System >  
(<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1768454826>)

> > or

> > Watkins Johnson RASP Surveillance Spy Radio >  
(<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1381551642>)

> > At the risk of sounding understated, this is really cool gear.

> > The descriptions and pictures are worth looking at just for the > drool factor alone.

> >

-----  
Date: Tue, 24 Sep 2002 10:44:06 -0500

From: "Mac" <w5mc@sbcglobal.net>

Subject: Re: Prem-Rx: Harris module A 19 I have the A-19 section in all my Harris receiver books.. seems like about 30 pages... I will copy if enough interest is wanting.. BTW Mike at Murphy's in San Diego had quite a few of these brand new at 75.00 last year.. he very well might still have these.. if not I have several extra's that I would sell for the same 75.00 . thanx mac/mc - ----- Original Message -----

From: "Chuck Urmson" <chucku@ieee.org> To: "'Tracey Gardner'" <tracey.gardner@ntlworld.com>; <Premium-Rx@kahuna.sdsu.edu> Sent: Tuesday, September 24, 2002 12:24 PM  
Subject: RE: Prem-Rx: Harris module A 19

> Hi Tracey,

> > I bought one of these and everything Helmut-Singer say is true. But, and it > is a big but, the manual does not have any information on the protocol and > messages used to drive the Pre-selector. Since this is a serial interface > it presents a bit of a problem.

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> > Regards, > Chuck Urmson

> > -----Original Message----- >

From: owner-premium-rx@kahuna.sdsu.edu > [mailto:owner-premium-rx@kahuna.sdsu.edu] On Behalf Of Tracey Gardner > Sent: 23 September 2002 22:06 > To: Premium-Rx@kahuna.sdsu.edu >

Subject: Prem-Rx: Harris module A 19

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> > Tracey >

-----  
Date: Tue, 24 Sep 2002 21:14:17 -0700

From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Ian O'Toole (Australia)

- -----=\_NextPart\_000\_02E9\_01C2640F.57325A80

**Fellow Members:**

Ian O'Toole, VK2ZIO is our newest member. Ian lives 50kms west of = Sydney.

He started collecting receivers, which he calls 'stuff', when he was 11. = Over the next 46 years his collection has increased until it numbers = 400, and required 2,400 sq.ft. of roof space.

During the past 20 years Ian has restored and exhibited his collection, = and in fact, is planning on opening a radio museum (assuming the local = government gives the green light).

His past efforts have included Oscar 6-10, as well as 6 and 2 meter DX.

Ian can be reached at: vk2zio@yahoo.com.au

- -----=\_NextPart\_000\_02E9\_01C2640F.57325A80

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content= 3D"MSHTML 5.50.4134.600" name= 3DGENERATOR> <STYLE></STYLE>  
</HEAD> <BODY bgColor= 3D#ffffff> <DIV> Fellow Members:</DIV>  
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<DIV> &nbsp;</DIV> <DIV> &nbsp;</DIV></BODY></HTML>
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- -----=\_NextPart\_000\_02E9\_01C2640F.57325A80--

-----  
Date: Wed, 25 Sep 2002 05:43:07 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Gilbert Harris (USA)

- -----=\_NextPart\_000\_0082\_01C26456.6C989820

**Fellow List Members:**

Gilbert Harris has been a reader of our archives for the past two years = and has FINALLY decided to take a risk and join the List.

His interest in receivers started at the age of 12 when he swapped an = 'all American 5' for another.... known as a S-38D. As he states, "That = was the "Premium" receiver of my world and introduced me, and probably = several of your members, to the world of short-wave".

Over the years his interest in receivers continued to the present day. = His 'premium-rx' of today is a: Harris RF-590's, WJ-8718's, WJ-8716's, = Racal RA6790/GM's, and one S-38.

Gilbert is now retired and has been a licensed amateur radio operator = (W4JDA) for thirty years. He presently calls a small island off the SW = Florida his home where he volunteers his talents in



> > Gilbert is now retired and has been a licensed amateur radio operator > (W4JDA) for thirty years. He presently calls a small island off the SW > Florida his home where he volunteers his talents in providing emergency > communications for the island. (Editor: I'll bet his is one busy person > during this time of the year? :-))

> > Please give Gilbert a few words of welcome- gilbertharris@earthlink.net >  
<mailto:gilbertharris@earthlink.net

> > >

-----  
Date: Wed, 25 Sep 2002 10:19:00 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member: Bertrand Velle (France)

- -----= \_NextPart\_000\_002E\_01C2647C.F7403DE0

Fellow Members:

Bertrand Velle has joined our membership. Let the record show that = Bertrand is our first member in France.

Bertrand informs me that buying or using a receiver which isn't limited = to the broadcast bands is not legal in his country. More accurately, = ownership requires the Prime minister's authorization. This difficulty = is even extended to amateur radio operators. Thus, while he is = interested in the design and operation of receivers, ownership is out of = the question.

He notes that he has been reading the achieves of our List for some = time. It is for this reason that I have taken the liberty to extend = membership to the List, specifically, so he can continue to be a part of = the List and enjoy posting if he desires.

Bertrand can be contacted at: Bertrand.Velle@apogee-com.fr

Bertrand represents our 212 member, and we are very happy that he has = joined us.....

- -----= \_NextPart\_000\_002E\_01C2647C.F7403DE0

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<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML><HEAD>
<META http-equiv= 3DContent-Type content= 3D"text/html; = charset= 3Diso-8859-1"> <META
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<DIV> &nbsp;</DIV></BODY></HTML>
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- -----= \_NextPart\_000\_002E\_01C2647C.F7403DE0--

-----  
Date: Wed, 25 Sep 2002 20:24:08 +0200  
From: "Herbert Bloemen" <bloemen@wxs.nl>  
Subject: Prem-Rx: REV receiver

- -----=\_NextPart\_000\_001C\_01C264D1.809228C0

Hi all,

Anybody out there that owns a REV 251 receiver (made in Hungary) and wants to share some experiences ?

Regards,

Herbert

- -----=\_NextPart\_000\_001C\_01C264D1.809228C0

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"> <HTML><HEAD>
<META content="text/html; charset=Diso-8859-1" http-equiv=Content-Type> <META
content="MSHTML 5.00.2614.3500" name=GENERATOR> <STYLE></STYLE>
</HEAD> <BODY bgColor=#ffffff> <DIV><FONT face=Arial size=2>Hi
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size=2>Herbert</FONT></DIV> <DIV>&nbsp;</DIV></BODY></HTML>
```

- -----=\_NextPart\_000\_001C\_01C264D1.809228C0--

-----  
Date: Wed, 25 Sep 2002 16:13:37 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: VIGILANT RECEIVERS - --part1\_a3.2edecf8f.2ac372f1\_boundary

Hi

does anyone on the list have any experience, good or bad, of the VIGILANT SR510, and SR532 receivers? I have just bought a working 510 and possibly a non working 532, so anything would be welcome, Dave

- --part1\_a3.2edecf8f.2ac372f1\_boundary

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<HTML><FONT FACE=arial,helvetica><BODY BGCOLOR="#ffffff"><FONT
style="BACKGROUND-COLOR: #ffffff" SIZE=2 FAMILY="SANSERIF" FACE="Arial"
LANG="0">
```

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```
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```

- --part1\_a3.2edecf8f.2ac372f1\_boundary--

-----  
Date: Wed, 25 Sep 2002 20:44:41 EDT  
From: Ka9p@aol.com



Subject: Re: Prem-Rx: New Member: Gilbert Harris (USA)

oh yeah fc? I had an S53A (used 17\$) which was probably the last time I had a receiver better than anyone else on the list :) Wonder if the inadequacies of some of these early sets is what got us all into this Premium receiver mess.....

-----  
Date: Wed, 25 Sep 2002 09:40:46 -0500  
From: "Mac" <w5mc@sbcglobal.net>  
Subject: Re: Prem-Rx: New Member: Bertrand Velle (France)

**Damn !! I was hoping to unload some Harris 590's on him... ????? = mac/mc**

-----  
Date: Wed, 25 Sep 2002 19:50:18 -0700  
From: "France Antelme" <fantelme2@attbi.com>  
Subject: Re: Prem-Rx: VIGILANT RECEIVERS

Dave,

My impression of the early SR532 unit that I looked at about 16 or 17 = years ago was that they were fairly bad receivers.

My unit had fairly significant distortion in the IF stages and the = microprocessor housekeeping controller tended to lock up regularly, = preventing one from tuning it.

Received audio was really quite unpleasant, and much worse than my FT707 = ham rig at the time

The synth was also quite noisy with marked discrete sidebands on it, if = I recall correctly

Another problem to beware of is that the Synthesizer on the unit that I = looked at was potted so you would a great deal of trouble repairing it = if it fails

Unfortunately I dont have any of my test results anymore.

Having said all this, these issues may have been resolved in later = units.

- -France K6QO/ZS6GO-

-----  
Date: Thu, 26 Sep 2002 10:37:17 +0100  
From: "Chuck Urmson" <chucku@ieee.org>  
Subject: RE: Prem-Rx: New Member: Ian O'Toole (Australia)

Hi Ian,

Welcome to the list. How are those RA7915s of yours doing?

Regards, Chuck Urmson

-----  
Date: Thu, 26 Sep 2002 12:24:12 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: FYI - Blocking of non-member postings- the outcome

Fellow Members-

Approximately two weeks ago we were spammed by a non-member. I = contacted our Unix 'mechanic' and he changed the settings on the server = to block any future attempts. The results of this have been both = unexpected and - - - well shall I say - - - interesting.

Evidently, the university has a virus filter on all incoming mail. In = addition, the filter is 'tuned' to attenuate porn presentations. Prior = to changing the settings, these presentations were directed to the = digital trash without my knowledge. HOWEVER, it seems, when we changed = the settings to block non-member posts, it automatically redirects ALL = non-member posts to the Webmaster's personal e-mail box. As of today, I = have received 29 unsolicited posts, the subject of which ain't to = technical if you get my hint!

(I can see some of you starting to smile)

Oh well, someone's got to do this job.

Greg

-----  
Date: Thu, 26 Sep 2002 15:29:58 EDT  
From: Llgpt@aol.com  
Subject: Re: Prem-Rx: FYI - Blocking of non-member postings- the outcome In a message dated 9/26/02 2:27:57 PM, gbailey@mail.sdsu.edu writes:

<< (I can see some of you starting to smile)

Oh well, someone's got to do this job.

Greg >>

Now that you are retired, you have plenty of time to keep us safe.....thank you, thank you, thank you.....:-)

Les Locklear Gulfport, MS. On the Gulf of Mexico Monitoring since 1957

-----  
Date: Thu, 26 Sep 2002 17:51:02 -0500  
From: mikea <mikea@mikea.ath.cx>  
Subject: Re: Prem-Rx: FYI - Blocking of non-member postings- the outcome On Thu, Sep 26, 2002 at 12:24:12PM -0700, Greg W. Bailey wrote: > Fellow Members-

>> Approximately two weeks ago we were spammed by a non-member. I contacted our Unix 'mechanic' and he changed the settings on the server to block any future attempts. The results of this have been both unexpected and - - - well shall I say - - - interesting.

>> Evidently, the university has a virus filter on all incoming mail. In addition, the filter is 'tuned' to attenuate porn presentations. Prior to changing the settings, these presentations were directed to the digital trash without my knowledge. HOWEVER, it seems, when we changed the settings to block non-member posts, it automatically redirects ALL non-member posts to the Webmaster's personal e-mail box. As of today, I have received 29 unsolicited posts, the subject of which ain't to technical if you get my hint!

>> (I can see some of you starting to smile)

>> Oh well, someone's got to do this job.

Yeah. That's what I do at my day job -- LART spammers. Sometimes it means I get to wade through some really obnoxious porn spam which one of our blue-haired sixty-ish secretaries REALLY wants to not get any more of.

Procmail is good -- the WJ-8611 of mailtools.

- - Mike Andrews mikea@mikea.ath.cx Tired old sysadmin since 1964

-----  
Date: Fri, 27 Sep 2002 09:27:44 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: Hi All, I'm looking for a couple 40.455 MHz filters with a 6 KHz bandwidth. I'm told they were used in some Harris radios like the HF350. I heard they will drop right into a Racal. Any Ideas where I could find a pair? fc

-----  
Date: Sat, 28 Sep 2002 16:10:39 +0100  
From: "Chuck Urmson" <chucku@ieee.org>  
Subject: RE: Prem-Rx: Harris module A 19 Hi Mac,

I have the complete A-19 section of the manual but it does not contain details of the serial protocol. I was hoping that it would be described somewhere in the rest of the manual.

Regards, Chuck

-----  
End of premium-rx-digest V1 #204 \*\*\*\*\*  
Subject: premium-rx-digest V1 #205  
premium-rx-digest Thursday, October 10 2002 Volume 01 : Number 205  
-----

----- Date: Mon, 30 Sep 2002 02:25:21 -0400  
From: "Barry Hauser" <barry@hausernet.com>  
Subject: Re: Prem-Rx: I TT-Mackay 3021A assist Greetings list:

I have a Mackay 3021A that's working well, but could use two minor fixes:

1. It arrived missing its cooling fan. The mounting screws and grille are there, but I need to know the specs and hookup to replace it. I run this out of a cabinet or rack and there's no top cover and heat buildup doesn't seem to be a problem, but ... for the sake of completeness: I have a 12 vdc fan that physically fits, however, the only power tap I see is a 2-pin molex connector on the end of a pair of red/black leads coming from the front of the unit with enough wire on it to reach 2/3rds of the way back. I measure 6.7 volts dc across the two pins. Actually, it's more like a 3-pin molex without the center pin.

Can anyone tell me the fan rating and hookup? I usually see either 12vdc or AC fans on equipment. If that molex connector is not for the fan -- what is it? There don't seem to be any dial lights on this and the meter doesn't appear to be of the illuminated type.

2. The meter function switch seems to be upside down. It's a bat-handled toggle. Up is supposed to be RF; down is supposed to be AF, but it works in the reverse. Either it was miswired when replaced or got turned 180 degrees. Anyway, it works properly in the RF position, but barely moves in the AF level setting, unless I blast the audio. Is there a sensitivity/calibration setting for this? There is a small hole in the rear panel marked "Audio Adj.". Is that for the meter calibration?

Needless to say, I'm flying blind on this one. Does anyone know where I can get a decent manual for it?

Thanks in advance, Barry

-----  
Date: Mon, 30 Sep 2002 14:18:45 EDT  
From: DL9FCC@aol.com  
Subject: Prem-Rx: top end reciver for sale

hello i have top end reciver for sale look like new sound like new i have now to many to keep .RACAL  
RA8772 COVER 15 TO 30 MHZ WJ 8711 WJ 8888 R&S EK 070 R&S EK085 PLESSY PRS-2282 73  
Dr. paim

-----  
Date: Tue, 1 Oct 2002 15:47:09 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: Hostraders this weekend Hi All, I looked in the bottom of the fridge last night  
and noticed a couple of Rolling Rocks left over from Spring Hostraders. I hope our new members and  
old attending this event will prevent me from bringing home any full ones. See you all Friday/Saturday  
NO RAIN....NO RAIN.....fc

-----  
Date: Tue, 1 Oct 2002 23:12:15 +0100  
From: "Tracey Gardner" <tracey.gardner@ntlworld.com>  
Subject: Prem-Rx: Hallicrafters EN359 Helmut Singer have a Hallicrafters EN359 receiver in their  
Scrapyard sale for approx. US\$ 83

<http://www.helmut-singer.de/fix/she.html>

Apparently it's a Coherent CW receiver, consisting of rf- and power supply drawers. special submarine  
communication; 2 ... 4 MHz, 4 ... 8 MHz, 8 ... 16 MHz, 16 ... 32 MHz; notch filter 1Hz / 3 Hz;  
receiver + power supply drawer, 19", very heavy, (but without synthesizer - drawer), i.e. system is not  
complete

I've never heard of this beast but presumably some of you guys must have?

Tracey

-----  
Date: Tue, 01 Oct 2002 18:56:01 -0700  
From: Craig McCartney <craigmc@pacbell.net>  
Subject: RE: Prem-Rx: Hallicrafters EN359 It sounds like a piece of Manson Labs gear similar to the  
GRC-129 and the mods for the R-390A.

Craig

- -----Original Message-----

From: owner-premium-rx@engineering.sdsu.edu [mailto:owner-premium-  
rx@engineering.sdsu.edu] On Behalf Of Tracey Gardner Sent: Tuesday, October 01, 2002 3:12 PM To:  
"Premium Rx List Posting"

Subject: Prem-Rx: Hallicrafters EN359

Helmut Singer have a Hallicrafters EN359 receiver in their Scrapyard sale for approx. US\$ 83

<http://www.helmut-singer.de/fix/she.html>

Apparently it's a Coherent CW receiver, consisting of rf- and power supply drawers. special submarine  
communication; 2 ... 4 MHz, 4 ... 8 MHz, 8 ... 16 MHz, 16 ... 32 MHz; notch filter 1Hz / 3 Hz;  
receiver + power supply drawer, 19", very heavy, (but without synthesizer - drawer), i.e. system is not  
complete

I've never heard of this beast but presumably some of you guys must have?

Tracey

-----  
Date: Wed, 2 Oct 2002 07:46:54 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: New Member Kurt Bandstetter (Vienna, AUSTRIA)

**Fellow Members:**

Kurt Bbandstetter has join the List. Kurt works in the Ministry for = Environment in Vienna Austria. His interest in radio, SWL (presently = has 343 DXCC countries confirmed), started with a home-brew 3 tube = receiver in 1963.

Over the years he has collected receivers such as the Drake R4, R4A, = R4B, R4C or Collins 51S-1. 51J-4, R-390A/URR ,75S-2 etc.

In addition, there are some unique and special receivers like- RFT = EKD-315 with EZ-100 preselector and KAA Active Antenna and RFT antennas = splitter, Collins 651S-1, JRC NRD 61 A, Rhode & Schwarz EK 56/4 (the one = with the preselector), ICOM R-9000, Telefunken E 1501 with the VS-1500 = preselector card (quite a rare one), Plessey PR-155, and a Racal 6790.

Kurt has a webpage that includes his receivers, QSL cards, as will as = many photographs of BA radios. The address is: = <http://www.swl.net/oe1002419>

You can contact Kurt via his home page.

Kurt is our first member in Austria if my memory is correct? Welcome to = the group, we are glad to have you join!

Greg

-----  
Date: Thu, 3 Oct 2002 17:49:14 -0600  
From: "Shaun Merrigan" <smerriga@compusmart.ab.ca>  
Subject: Prem-Rx: Collins 95S-1A Another unique rx up for auction here:

<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1774087064>

More information on the unit can be found at:

<http://www.wa3key.com/95s1.html>

This page is courtesy the Virtual Collins Radio Museum and is really worth a look.

Disclaimer: I am not in the habit of posting EBAY items on the Premium-Rx list. However, there have been some unique and exceptional units offered over the past month or so, and I thought the readership should know about them.

Shaun

- -- smerriga@compusmart.ab.ca

-----  
Date: Sun, 6 Oct 2002 18:22:52 EDT  
From: Daiungoed@aol.com  
Subject: Prem-Rx: VI G I L A N T SR510 RECEIVER - --part1\_ca.12908d6a.2ad211bc\_boundary

Hi

can anyone point me in the direction of a copy of the manual for the above receiver, or any info. really, especially how to program the preset channels, which I am told is done by a diode matrix, any help gratefully received, Dave

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Date: Mon, 7 Oct 2002 04:14:47 +0100  
From: "VE6JY Don Moman" <ve6jy@freenet.edmonton.ab.ca>  
Subject: Prem-Rx: For Ben Wallace Sorry to waste others time on this, but Ben's email isn't letting me get a reply to him. Ben I have the 2050 part you need but please send me an alternate email address - the one I replied to says my reply is SPAM and won't let it through!

73 Don VE6JY

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**End of premium-rx-digest V1 #205 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #206**  
**premium-rx-digest Friday, October 18 2002 Volume 01 : Number 206**  
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Date: Thu, 10 Oct 2002 12:02:41 -0500  
From: "Jerry Kincade" <w5kp@direcway.com>  
Subject: Re: Prem-Rx: Re: Premium List, Selling of Equipment Actually, it was my understanding when I joined this list that if someone had a "spare" premium RX he/she was considering letting go, that it was ok to throw at least that much info out for the benefit of list members, as long as further inquiries, discussions, and price information was kept between the interested parties via private email/phone and not generally distributed to the list. Is that understanding incorrect, Greg? And in the same vein, would a list query stating "looking for a Model xxx receiver, please reply by private email" be also prohibited? 73, Jerry W5KP

> > > > >

-----  
Date: Thu, 10 Oct 2002 13:26:12 EDT  
From: DL9FCC@aol.com  
Subject: Prem-Rx: HELLO TO ALL

**hello just came from my good holiday . had a very good time i have to say . no i like to say that all the reciever i had for sale all SOLD now to one person in GERMANY many thanks dany . all the best now Dr. G. Paim MD. pHD**

-----  
Date: Thu, 10 Oct 2002 13:28:28 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: Re: Premium List, Selling of Equipment Hi All, I belong to a 160 m net that meets Tuesday night 1945 KHz. This issue came up there also. We decided it was OK to mention surplus items as long as the volume of this traffic was low compared to other topics. We like to keep the good stuff in the family so to speak. It has worked out very well so far. fc

-----  
Date: Thu, 10 Oct 2002 20:18:26 EDT  
From: Ka9p@aol.com  
Subject: Re: Prem-Rx: Re: Premium List, Selling of Equipment

I'd add that when I was looking for a particular receiver a few years ago, a short "looking for" note on the reflector brought out several courteous replies, from class act guys with a good knowledge of what their equipment was worth and how it worked. And I got one I've been really happy with. In other words, as they say on the ad "priceless." (thanks Greg) Scott

-----  
Date: Thu, 10 Oct 2002 13:16:22 -0500  
From: "Mac" <w5mc@sbcglobal.net>

Subject: Prem-Rx: my mail box my sumbitch'n mail box is all screwed up... the Collins mail is coming in on the PREMI UM mail box... dx and qrm all screwed up.. gotta cut back on the RF gain.. or turn on the squelch.. mac/mc

-----  
Date: Sat, 12 Oct 2002 10:12:44 -0700  
From: jan@skirrow.org  
Subject: Prem-Rx: Harris A-19 Preselector Hi all ...

A few weeks back someone was looking for info on the serial logic string that controls the A-19. I've misplaced the emails and wondered if anyone was able to help? I have some A-19s I'd like to play with and need the same info.

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Sat, 12 Oct 2002 15:30:40 EDT  
From: Llgpt@aol.com

Subject: Prem-Rx: History of the Hammarlund Manufacturing Co. Here is a link to the reently added history of the Hammarlund Manufacturing Co.

[http://www.hammarlund.info/info/company\\_history/co\\_history.pdf](http://www.hammarlund.info/info/company_history/co_history.pdf)

Any comments or suggestions are welcomed.

< A HREF="http://www.hammarlund.info/homepage.html"> The H Files< /A>

Les Locklear

-----  
Date: Mon, 14 Oct 2002 09:45:45 -0700  
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>  
Subject: Prem-Rx: FYI : Server Down yesterday 1300 GMT

- -----= \_NextPart\_000\_023F\_01C27366.77A8BA00

Fellow List Members:

As some of you noted, on Sunday, 1300 GMT, give or take a few hours, the = Unix server used for the Premium-Rx List was off line for 'unscheduled = maintenance' ( translation: it died! ).

According to Chris Paolini, the university's Unix mechanic, the machine = was given a little TLC and a verbal warning about taking unauthorized = sick leave.

Result- we again have digital magic. This is the third time it has = gone down in as many years.

Greg

- -----=\_NextPart\_000\_023F\_01C27366.77A8BA00

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- -----=\_NextPart\_000\_023F\_01C27366.77A8BA00--

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Date: Fri, 18 Oct 2002 12:55:42 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: Prem-Rx: HP8640B Question Hi All, I have a problem with my generator on one band only 2 to 4 MHz. I suspect the filter section but any suggestions welcome. Power output is low on the Plus 20 DBM range only. The AUX output in the back is also low compared to other bands. Am modulation produces much high order distortion. It looks like the AGC reference is changed for plus 20 dBM. I see the attenuator is zero db for plus 10 and plus 20 ranges. All other bands and functions work fine so the amplifiers and attenuator should be fine. Thank you, fc

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**End of premium-rx-digest V1 #206 \*\*\*\*\***  
**Subject: premium-rx-digest V1 #207**  
**premium-rx-digest Friday, October 25 2002 Volume 01 : Number 207**

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----- Date: Fri, 18 Oct 2002 11:23:09 -0700  
From: jan@skirrow.org  
Subject: Re: Prem-Rx: HP8640B Question Hi Frank ...

Is the problem the same on both the upper and lower parts of the 2-4 range? The filter section switches over at the halfway point, so a problem on one half helps isolate.

The only problem I've ever had with my 8640B was an open inductor in the filter section that resulted in no output over a half of one range only. Everything else worked fine.

Jan

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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Date: Fri, 18 Oct 2002 14:31:49 -0400  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: HP8640B Question Hi Jan, Thank you for the idea. I didn't notice the switch over function. I thought it was mechanical control from the band switch. I suspect the low drive to the diode attenuator is the problem on AM. It must be going into cut off. I notice the harmonics are



higher on that band so maybe my problem is a shunt cap or a switch contact. I think it is time to find a junker to act as a hanger queen for my two units. fc

- -----Original Message-----

From: jan@skirrow.org [mailto:jan@skirrow.org] Sent: Friday, October 18, 2002 2:23 PM To: Carcia, Frank A. HS; 'Premium-RX@kahuna.sdsu.edu'

Subject: Re: Prem-Rx: HP8640B Question

Hi Frank ...

Is the problem the same on both the upper and lower parts of the 2-4 range? The filter section switches over at the halfway point, so a problem on one half helps isolate.

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Jan

..... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Fri, 18 Oct 2002 12:31:10 -0700

From: jan@skirrow.org

Subject: RE: Prem-Rx: HP8640B Question Hi again Frank ...

The filter switching is fairly complex and both mechanical and electrical. If you remove the cover on the big aluminum box, you'll find the RF divider circuit board underneath. It has to be removed with its riser, and then the riser from the board (if I remember the sequence correctly!). Then the next part of the AI box can be removed to reveal the filter assembly. The top circuit board can be plugged back in (w/o the riser) to allow the generator to operate with the boxes removed. Really facilitates troubleshooting.

Be careful which of the screws holding the box in place are removed at each stage, and note that there are two different lengths. I had problems in reassembly due to aging aluminum, so lubricated the threads and was very careful to get the screws started properly before tightening down - the holes are easily cross threaded!

The filter assembly is on the bottom circuit board, and there is a mechanical linkage thru to the range switch below. The cavity tuning control has electrical contacts that switch relays to accomplish the hi-band, lo-band halfway switchover I mentioned.

The filter assy is likely to be pristine, and it's unlikely that the mechanical switch points in the filter assy itself will be a problem. Sure could be a cap or inductor though. These parts are easy to find - although I wouldn't want to have to replace the ICs etc.

All that said, I'd first check the switches on the range and tuning control (and the related gears etc.) before digging into the filter. All of the 8640Bs that I have seen have cracks in the plastic gears, some quite serious, and one had damaged contacts on one of the switches. I have tried stabilizing the cracks with a suitable epoxy, which seemed to work. These are also likely to be damaged in any parts unit you find. ;< (

Hope this helps.

Jan

At 02:31 PM 10/18/02 -0400, you wrote: > Hi Jan, > Thank you for the idea. I didn't notice the switch over function. > I thought it was mechanical control from the band switch. I suspect the low > drive to

the diode attenuator is the problem on AM. It must be going into > cut off. I notice the harmonics are higher on that > band so maybe my problem is a shunt cap or a switch contact. I think it is > time to find a junker to act as a hanger queen for my two units. > fc

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From: jan@skirrow.org [mailto:jan@skirrow.org] > Sent: Friday, October 18, 2002 2:23 PM > To: Carcia, Frank A. HS; 'Premium-RX@kahuna.sdsu.edu' >

Subject: Re: Prem-Rx: HP8640B Question

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... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Date: Fri, 25 Oct 2002 16:12:52 -0700  
From: jan@skirrow.org  
Subject: Prem-Rx: Collins HF-2050 FS Hi All ...

Tom Price tells me he has a Collins HF-2050 for sale. He tells me the radio works properly, but I can't verify that. I normally wouldn't post this to the list, but I know some members are interested in getting one of these units.

Anyone interested in the radio please contact Tom directly.

Tom is at: tomprice@hfx.eastlink.ca

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

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End of premium-rx-digest V1 #207 \*\*\*\*\*  
Subject: premium-rx-digest V1 #208  
premium-rx-digest Saturday, November 2 2002 Volume 01 : Number 208  
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----- Date: Fri, 25 Oct 2002 16:45:33 -0700 (PDT)  
From: Warren Ziegler <ny2h@yahoo.com>  
Subject: Prem-Rx: Rohde & Schwarz EK56 Hello, Anyone on the list familiar with the Rohde & Schwarz EK56? I understand that it's an early solid state unit. I would like to hear from anyone that has experience with one. Thanks Warren NY2H





Subject: Re: Prem-Rx: Cubic R3030 / 3080 Hi John,

As an owner of a 3030, I'm curious what mods you've made.

Tnx,

-- Jeff, WA6AHL - ----- Original Message -----

From: "refmon" <monitor@referencevideo.com> To: <premium-rx@kahuna.sdsu.edu> Sent: Monday, October 28, 2002 11:38 PM

Subject: Prem-Rx: Cubic R3030 / 3080

> Hi everyone

> > Long time since I posted...after a number of Cubic R3030 modification > projects that have been well documented in the past, I've just scored 2 > pristine R3080 chassis without modules, but with the chassis infrastructure > intact. Some of you may have seen these on ebay a while back...never > sold..I got my crazed idea and tracked the guys down. Nice guys, by the > way.

> > Anyway, here's the project: although the 3080 chassis is cabled and > connected for GPIB, I'll not be using remote control on my field trips, so > I'm considering transplanting the innards from one of my dual R3030A (which > has serial control vs GPIB...I just won't hook up the remote control). The > nice thing about this is that the 3080 chassis accepts all the boards and > based on initial tests, a tuneup is virtually not necessary....plus, the > receivers are transformed from 45lb razor-edged vampire slaying tools into > 20-ish pound, round corner-with hand holds, table top receivers. This will > go a long way toward taking one or two premiums with me on trips without all > the hassles...just stick it in the hard case with antennas and speaker, and > you're off.

> > I've also scored a couple of the 455KHz filter boards at way-low bids about > a year ago...I'll load these into the 2nd IF modules, as these filters are > the handier > 0.5, 1, 2, 4, 8 KHz sets vs the looser .5, 1, 3.2, 8, 16 filters. The > display will mis-read, as the filter type is hard-coded into firmware, but > who cares? Some of these receivers actually were manufactured without > speaker outputs, although the live connector pin is there...all you need is > a pin (standard computer piece) and wire for the mating connector and a rear > panel spare pin and you're in business.

> > Actually, I was just wondering if anyone else has been fiddling with these > receivers...they've been really loyal and reliable...I'm sure field trips > will put an end to that.

> > with regards

> > John Collins > Oregon, USA > \_\_\_\_\_ >

-----  
Date: Tue, 29 Oct 2002 09:40:42 -0500

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: Cubic R3030 / 3080 Hi All, A while ago I down loaded the service manual for the 3030/3080 so it could be compared to my Racal RA6830 design. I like the gain distribution of the first IF in the 3030 using CP640 FETs. I think the Racal has a better demodulation configuration for AM though. The internal preselector and switchable RF amplifier are also nice features in the 3030. The 6830 has dual crystal filters in the first IF where the 3030 has only one. I wonder if any of you Cubic drivers ever measured the dynamic range of the Cubic at 30 KHz spacing down to 5 kHz spacing. Also I would like to compare the synthesizer phase noise numbers. I think the these two receivers are similar performance and be a good match for a quarter mile run. Gary Wingerd told me TCI used both receivers in their DF systems. The form factor of the 3030 and Racal dual receiver rack case are the same. I would love to do some Frankenstein organ transplants between both of these two receivers. The CP640 FETS in the first IF of the 3030 compared to the U310's in the 6830 would be an interesting swap. fc

- -----Original Message-----

From: Jeff Anderson [mailto:jeffa@ix.netcom.com] Sent: Tuesday, October 29, 2002 6:21 AM To: premium-rx@kahuna.sdsu.edu

Subject: Re: Prem-Rx: Cubic R3030 / 3080

Hi John,

As an owner of a 3030, I'm curious what mods you've made.

Tnx,

- - Jeff, WA6AHL - ----- Original Message -----

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> > with regards

> > John Collins > Oregon, USA > \_\_\_\_\_ >

-----  
Date: Wed, 30 Oct 2002 13:14:45 -0800

From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>

Subject: Prem-Rx: --- ADDRESS CHANGE FOR PREMIUM-Rx LIST ---

- -----=\_NextPart\_000\_0398\_01C28016.512AF200

21:16 UT

Dear Fellow Members-

About four years ago, the Premium-Rx List was born and San Diego State = University generously agreed to host it. Since then, I've retired from = SDSU and the list has grown in both numbers and traffic to the point = where it also needs to graduate.

Within the next ten days or so the Premium-Rx@Engineering.SDSU.Edu list = will move to another server. We will be testing the new software for a = bit, and will let you know when the changeover is effective, and what = the new server address will be. Until then you will be able to continue = to post to Premium-Rx@Engineering.SDSU.Edu.

We will try to make this change as seamless as possible to the = membership, but we may encounter some unforeseen digital bugs. I = apologize now for any disruption in service, lost posts, and/or other = smoke-n-mirror problems that may surface as a result of the move.

Jan Skirrow, VE7DJX, a long time member of the List has volunteered to = host the list. You will get an e-mail from him with information about = the move as soon as the new list server is operational. Watch for an = Email with the

Subject: "PREMIUM-RX ADDRESS ANNOUNCEMENT" There will be an overlap of both servers as the change occurs so that = nothing gets lost. So don't panic if you start seeing double posts as = both servers may be working. Also, anyone posting to the old server = after the changeover will receive a reply from the SDSU server = announcing the change and the new address. The one thing we don't want = is for anyone to get left behind. So if after a couple of weeks you hear = nothing from the Premium-Rx List, please email either = gbailey@mail.sdsu.edu or jan@skirrow.org.

To Chuck, Mike Murphy, Mac, Ben, Frank, Steve, Mr. President, and Jim = Pruitt, plus many others, specifically the people that have kept me at = this for four years.... my thanks. It has been a pleasure to share with = you the growth of this List- we are now six continent, 27 countries, = 200+ members..... and growing.....

Greg Bailey San Diego

- -----\_NextPart\_000\_0398\_01C28016.512AF200

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- -----=\_NextPart\_000\_0398\_01C28016.512AF200--

Date: Wed, 30 Oct 2002 16:32:16 -0500  
From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>  
Subject: RE: Prem-Rx: --- ADDRESS CHANGE FOR PREMIUM-Rx LIST ---

- -----\_=\_NextPart\_001\_01C2805B.D133D710

To All, It sure has been fun hanging out with all you smart guys. I hope we can continue! fc

- -----Original Message-----

From: Greg W. Bailey [mailto:gbailey@mail.sdsu.edu] Sent: Wednesday, October 30, 2002 4:15 PM  
To: Premium-Rx@kahuna.sdsu.edu

Subject: Prem-Rx: --- ADDRESS CHANGE FOR PREMIUM-Rx LIST ---

21:16 UT

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Jm5ic3A7Jm5ic3A7IFRvIEFsbCw8L0ZPTlQ+ PC9TUEFOPjwvREIWPg0KPERJVj48U1BBTiBjbGFz  
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DQpjb2xvcj0jMDAwMGZmIHNpemU9Mj5JdCBzdXJlIGhhcyBiZWVuIGZ1biBoYW5naW5nIG91dCB3  
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YnNwOyBmYzwwRk9OVD48L1NQQU4+ PC9ESVY+ DQo8QkxPQ0tRVU9URSBkaXI9bHRyIHN0eW  
xlPSJN  
QVJHSU4tUklHSFQ6IDBweCI+ DQogIDxESVYgY2xhc3M9T3V0bG9va01lc3NhZ2VIZWfKZXIgzG1  
yPwX0ciBhbGlnbj1sZwZ0PjxGT05UIGZhY2U9VGfob21hIA0KICBzaXplPTI+ LS0tLS1Pcm1naW5h  
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MTYgVVQ8L0RJVj4NCiAgPERJVj4mbmJzcDs8L0RJVj4NCiAgPERJVj5EZWfYIEZlbGxvdyBNZW1i  
ZXJzLTwwREIWPg0KICA8REIWPiZuYnNwOzwvREIWPg0KICA8REIWPkFib3V0IGZvdXIgeWVhcn  
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YWdvLCB0aGUgUHJlbW1bS1SeCBMaXN0IHdhcyBib3JuIGFuZCBTYW4gRGllZ28gU3RhdGUgDQ  
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ZSByZXRpcmVklGZyb20gU0RTVSANCiAgYW5kIHRoZSBsaXN0IGhhcyBncm93biBpb3R0IG51  
bWJlcnMgYw5kIHRyYWZmaWMgdG8gdGhlihbvaW50IHdoZXJlIGl0IGFsc28gDQogIG5lZWRzIHR  
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IGdyYWR1YXRILjxCUj48QlI+ V2l0aGluIHRoZSBuZXh0IHRlbiBkYXlzlG9yIHNvIHRoZSA8QSAN  
CiAgaHJlZj0ibWFpbHRvOlByZW1pdW0tUnhARW5naW5lZXJpbmVudU0RTVS5FZHUipIByZW1pdW  
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IHNlcnZlci4gV2Ugd2lsbCBiZSB0ZXN0aW5nIHRoZSBuZXcgZm9yIGVudDQogIGJp  
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uIHLvdSB3aWxsIGJlIGFibGUgdG8gY29udGludWUgdG8gcG9zdCB0byA8QSANCiAgaHJlZj0ibWFp  
bHRvOlByZW1pdW0tUnhARW5naW5lZXJpbmVudU0RTVS5FZHUipIByZW1pdW0tUnhARW5naW5l



Les Locklear

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Date: Thu, 31 Oct 2002 11:53:27 -0800

From: jan@skirrow.org

Subject: Prem-Rx: IMPORTANT: PREMIUM-RX ADDRESS ANNOUNCEMENT <html> <b>All Premium-Rx List Members:<br> <br> </b>As Greg Bailey explained yesterday (Wednesday), the Premium-Rx list is moving to another server, <b>effective Friday AM</b>.<br> <br> <b>To post to the new server, send emails to:<br> <br> premium-rx@ml.skirrow.org<br> <br> </b>The old server address at SDSU will remain active for a time, but this new address should be used from Friday AM. New subscribers approved after today will NOT be on the old server, so will not receive any posts accidentally sent there.<br> <br> The list is otherwise unchanged: same purpose and rules, same subscriber requirements etc. Greg will continue to handle new subscribers. I'll try and keep the list software running.<br> <br> When the list members are switched over to the new server (probably within the next few hours), each of you will receive (I hope!) an email from the list server welcoming you, and providing some useful information, including how to access your personal list homepage so that you can alter the various settings for your access to the list.<br> <br> This message will be sent through both the old server, and a slightly modified version on the new server as soon as it is activated. We don't want to lose anybody through this changeover!!<br> <br> I will send out additional info as we work out the details with SDSU about what happens to the old list homepage and old archives on the SDSU server. Meanwhile the new list homepage and new archives are operational on the new server.<br> <br> See you all on the other side ...<br> <br> Jan Skirrow <br> <br> </html>

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Date: Thu, 31 Oct 2002 15:35:21 -0500

From: "Carcia, Frank A. HS" <francis.carcia@hs.utc.com>

Subject: RE: Prem-Rx: IMPORTANT: PREMIUM-RX ADDRESS ANNOUNCEMENT

Hi

Maybe it is time to clean house with some of the old stuff. Also if our retired leader is motivated we could separate data based on RX model. I hate to put people to work and just a suggestion. It might be an idea to sort new data. Ever try to look back to find that web site for old parts? fc

- -----Original Message-----

From: jan@skirrow.org [mailto:jan@skirrow.org] Sent: Thursday, October 31, 2002 2:53 PM To: premium-rx@kahuna.sdsu.edu

Subject: Prem-Rx: IMPORTANT: PREMIUM-RX ADDRESS ANNOUNCEMENT

All Premium-Rx List Members:

As Greg Bailey explained yesterday (Wednesday), the Premium-Rx list is moving to another server, effective Friday AM.

To post to the new server, send emails to:

premium-rx@ml.skirrow.org

The old server address at SDSU will remain active for a time, but this new address should be used from Friday AM. New subscribers approved after today will NOT be on the old server, so will not receive any posts accidentally sent there.

The list is otherwise unchanged: same purpose and rules, same subscriber requirements etc. Greg will continue to handle new subscribers. I'll try and keep the list software running.

When the list members are switched over to the new server (probably within the next few hours), each of you will receive (I hope!) an email from the list server welcoming you, and providing some useful information, including how to access your personal list homepage so that you can alter the various settings for your access to the list.

This message will be sent through both the old server, and a slightly modified version on the new server as soon as it is activated. We don't want to lose anybody through this changeover!!

I will send out additional info as we work out the details with SDSU about what happens to the old list homepage and old archives on the SDSU server. Meanwhile the new list homepage and new archives are operational on the new server.

See you all on the other side ...

Jan Skirrow

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Date: Thu, 31 Oct 2002 17:29:18 -0700  
From: Rob & Terri Sherwood <rob@sherweng.com>  
Subject: Prem-Rx: Welcome ????. Why did I get a Welcome email to a list I have been on for years?

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Date: Thu, 31 Oct 2002 18:26:01 -0600  
From: "Mac" <w5mc@sbcglobal.net>  
Subject: Re: Prem-Rx: Welcome ????. as opposed to an unwelcome and we are not welcome I guess .. I feel a lot of love here... that's nice.. mac/mc - ----- Original Message -----

From: "Rob & Terri Sherwood" <rob@sherweng.com> To: "RX Premium" <Premium-RX@KAHUNA.SDSU.EDU> Sent: Thursday, October 31, 2002 6:29 PM  
Subject: Prem-Rx: Welcome ????

> Why did I get a Welcome email to a list I have been on for years?

> >

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Date: Thu, 31 Oct 2002 18:53:55 -0800  
From: "John Miles" <jmiles@pop.net>  
Subject: RE: Prem-Rx: Welcome ????. The server was relocated (per Greg's earlier message) and everyone had to be re-subscribed.

- -- jm

> -----Original Message----- >

From: owner-premium-rx@engineering.sdsu.edu > [mailto:owner-premium-rx@engineering.sdsu.edu] On Behalf Of Mac > Sent: Thursday, October 31, 2002 4:26 PM > To: Rob & Terri Sherwood; RX Premium >

Subject: Re: Prem-Rx: Welcome ????

> > > as opposed to an unwelcome and we are not welcome I guess .. I feel a lot > of love here... that's nice.. mac/mc > ----- Original Message ----- >

From: "Rob & Terri Sherwood" <rob@sherweng.com>  
> > To: "RX Premium" <Premium-RX@KAHUNA.SDSU.EDU>  
> > Sent: Thursday, October 31, 2002 6:29 PM >

Subject: Prem-Rx: Welcome ????

> > > > Why did I get a Welcome email to a list I have been on for years?

> > > > > >

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Date: Sat, 02 Nov 2002 08:15:19 -0700  
From: John Fallows <john.fallows@shaw.ca>  
Subject: Prem-Rx: {VIRUS?} ERGO 4 Released

- --Boundary\_(ID\_dOPa2JbRSp16rYeiXuZjlw) charset= iso-8859-1

Warning: This message has had one or more attachments removed. Warning: Please read the "VirusWarning.txt" attachment(s) for more information.

Includes support for HF1000, WJ8711/12 and RX340. See web site for details on features, which include: \* DSP \* Remote receiver control

73 John Fallows VE6MBA Creative Express Corporation ERGO Radio Software <http://swldx.com>

- --Boundary\_(ID\_dOPa2JbRSp16rYeiXuZjlw) ; name= "VirusWarning.txt" Content-Disposition: attachment; filename= "VirusWarning.txt"

This is a message from the MailScanner E-Mail Virus Protection Service -

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----- The original e-mail attachment "winmail.dat" was believed to be infected by a virus and has been replaced by this warning message.

If you wish to receive a copy of the \*infected\* attachment, please e-mail helpdesk and include the whole of this message in your request. Alternatively, you can call them, with the contents of this message to hand when you call.

At Sat Nov 2 07:16:10 2002 the virus scanner said: Could not parse Outlook Rich Text attachment Note to Help Desk: Look on the MailScanner in /var/spool/MailScanner/quaran= tine (message gA2FG3Jv000127). - -- Postmaster

- --Boundary\_(ID\_dOPa2JbRSp16rYeiXuZjlw)--

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End of premium-rx-digest V1 #208 \*\*\*\*\*  
Subject: premium-rx-digest V1 #209  
premium-rx-digest Monday, November 25 2002 Volume 01 : Number 209

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Date: Sat, 02 Nov 2002 09:08:39 -0700  
From: John Fallows <john.fallows@shaw.ca>  
Subject: Prem-Rx: ERGO 4 Released Apologies to the group. The mailer mistook some rich text format as a virus, I forgot to send the message in plain text. There was no virus.

73 John Fallows VE6MBA

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Date: Mon, 25 Nov 2002 22:41:10 +0900  
From: akio fujikawa <jg3gog@jarl.com>  
Subject: Prem-Rx: WTB: unit for R/C 851S-1 Looking for unit for 851S-1. Please let me know what you have and the price.

TNX

R/C TS-8010 P/N 622-3431-001/-002 Card Extender Kit for 851S-1 R/C AC-85101 P/N 622-4607-001 DVBFO Kit for 851S-1

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