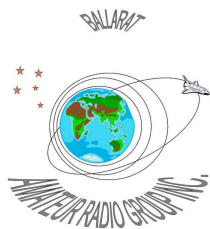


BARG News

Xmas Edition



Official Newsletter of the Ballarat Amateur Radio Group Inc. # 6953T

ABN 44 247 200 143

VOLUME 32 ISSUE 12 DECEMBER 2009



President: Doug Raper VK3VBA
 Secretary: Doug Ellery VK3FDRE
 Treasurer: Peter Pollard VK3FPOL

NEXT MEETING - FRIDAY January 29, 2010
 At 7.30 pm

Contacting us

You can write to the club at the address below, or e-mail the secretary.



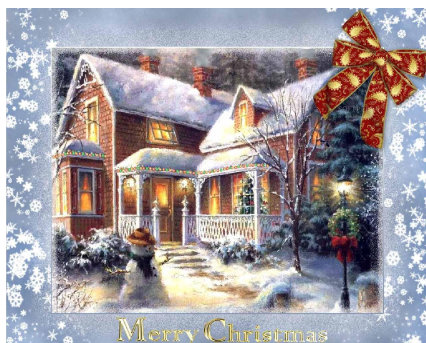
The Secretary : B.A.R.G. Inc.
 Box 1261
 Mail Centre
 Ballarat. Vic. 3354.



Or E-Mail: vk3bml@barg.org.au

BARG INC. LIFE MEMBERS

Gordon Cornell	VK3FGC
Norm D'Angri	VK3LBA
Harry Hekkema	VK3KGL
Kevin Hughes	VK3WN
Ian McDonald	VK3AXH
Phil Seddon	
Charlie Stewart	VK3DCS
Bob Terrill	VK3BNC



CLUB INFORMATION

REPEATERS and BEACON

D—STAR

CALLSIGN:	MODE:	FREQUENCY:	TX OFFSET:	USER SETTINGS
VK3RBA A	Digital Data	1298.700 MHz	Nil (half duplex)	URCALL: VK3RBA RPT1: VK3RBA A RPT2: not in use
VK3RBA B	Digital Voice	439.9875 MHz	-5.0 MHz	URCALL: CQCQCQ RPT!: VK3RBA B RPT2: not in use

VK3RBA (UHF)	(70 cm Voice Repeater (Uses CTCSS of 91.5 Hz to access))	439.275 MHz	Mt Buninyong
VK3RBA (VHF)	(2 m Voice Repeater)	146.750 MHz	Mt Buninyong
VK3RWA*	(2 m Voice Repeater) (Uses CTCSS of 91.5 Hz to access)	147.100 MHz	Mt Ben Nevis
VK3RPC	(2 m Packet Repeater)	144.750 MHz	Mt Warrenheip
VK3RBU	(70 cm Voice Repeater)	438.475 MHz	Mt Hollowback
VK3RMB	(70 cm Beacon)	432.535 MHz	Mt Buninyong
VK3RBU-1	(2 m APRS Repeater)	145.175 MHz	Mt Hollowback

* **IRLP** Node 6310 using VK3RWA

CLUB e-mail vk3bml@barg.org.au.

CLUB NET VK3BML 3.610+/- QRM Thursday Nights at 8 pm E.S.T (Summer & Winter)

WIA Broadcast Sunday 11.00 am via VK3RWA (IRLP Node 6310)

NEWS ITEMS Send to Harry VK3KGL

Or mail to Box 1261 Mail Centre BALLARAT 3354 or e-mail vk3kgl@barg.org.au

Broadcast Times and Dates on VK3RWA Repeater

Every Sunday at 11.00 am, WIA National News.

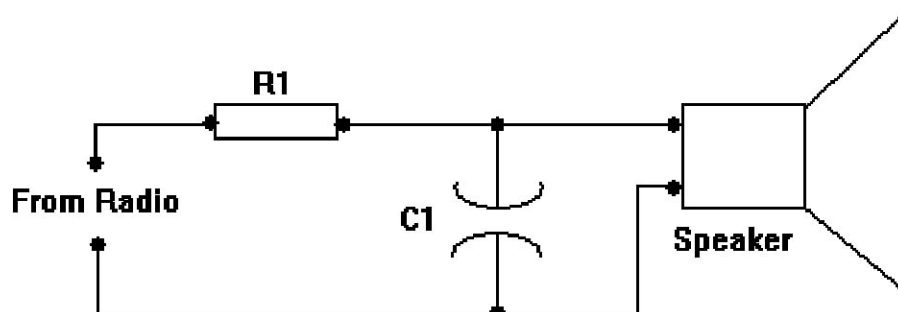
Every Monday night at 9.30 pm, ARRL News

Every Tuesday night at 9.30 pm, WIA National News Repeat

A \$1.00 Noise Reducing Speaker

Kill the crackle on the cheap.

by L.D. Blake – VE3VDC



Many a good QSO has been wrecked by that high pitched crackling noise that is common on weak signals. Sometimes it comes in louder than the voice and makes it impossible for you to hear your partner. It's called "Bacon Frying" or "Spike Noise" and it's the enemy of every ham.

Spike noise is a high frequency pulse that rides on top of the voice on weak signals. It is usually the highest pitched sound coming from your speaker and sometimes it's the loudest. Traditionally this has been handled by add on filtering systems using either analog or digital signal processing methods. Only high end (i.e. expensive) rigs have had these devices built in. Whether analog or digital, many low end and mobile radios don't include them.

Fear not! There is a perfectly workable solution to the problem using nothing more than a couple of cheap parts...

The circuit, pictured below, is a simple low pass filter that can be added to any speaker and uses only a pair of 50 cent parts.

Despite the unusual electronic symbol, C1 is a common non-polarized electrolytic capacitor used mostly in speaker crossover networks. It has to be non-polarized because the speaker is working on alternating current. You cannot use a polarized electrolytic capacitor here because under reverse voltage it acts like a short and would cause considerable distortion.

The resistor, R1, is also a common part you can get at any electronics supply house. There is some volume loss due to the resistor being in series with one of the speaker leads but it is barely noticeable and given the benefits, it's a good trade off.

Human speech doesn't require full fidelity audio. Most voice energy is concentrated in the range of 400 to 3000 hz. Most of the really annoying noise is in the range of 2500 to 10,000 hz. Since these two ranges don't overlap very much we can effectively reduce the audible noise on a signal using a low pass filter to remove the portion of the audio spectrum above 3,000hz. This effectively takes off the noise and leaves the voice alone.

The combination of series resistor and shunt capacitor forms our low pass filter. At low frequencies the capacitor appears as an open circuit and all the audio goes to the speaker. At higher frequencies it acts as a short across the speaker, causing this energy to be dissipated across the resistor where we don't hear it.

The part values for noise canceling with minimal impact on voice quality are on the right. The resistor should be 2 watts or better. The capacitor should be a non-polarized electrolytic type rated for at least 16 volts.

There is no harm in experimenting with different capacitor values to get a tonality you like. Increasing the capacitor's value will increase the noise reduction but will also make voices sound more bassy. Go too far and everything will sound muffled. To avoid excessive losses you should always match the resistor with the impedance of your speaker.

Values For Minimal Effect

Speaker	R1	C1
4 ohms	5 ohms	10 uf
8 ohms	10 ohms	4.7 uf
16 ohms	15 ohms	2.2 uf

Construction

Adding this to your station speakers is easy:

1. Take the back off of the speaker you are going to modify.
2. Unsolder one wire from the speaker connection point. It doesn't matter which wire.
3. Now solder the capacitor to the speaker's two connections, one wire on each.
4. Solder one end of the resistor to the speaker connection where you took off the wire.
5. Then solder the wire you took off the speaker to the other end of the resistor.
6. Tuck the parts down out of the way, making sure they don't touch the speaker itself as this would cause a buzzing sound at louder volumes.
7. The finished project should look something like the picture above.
8. Finally, reassemble the speaker.

Conclusions

Ok, a \$1.00 circuit isn't going to replace a \$100.00 DSP unit but it can bring about considerable relief from that nasty crackling noise and it might save you a couple of headaches when trying to work that rare signal. So there you have it... less than a dollar for a noise reducing speaker that will turn your station into a headache free zone!

The Spring VHF/UHF field day

Sat 28 December found four BARG members sitting on Green Hill Mt Helen for the VHF/UHF field day. Despite "varying weather conditions" they survived for about four hours until the wind decided to shred the overhead tarp. Bands from 6m through to 13cm were worked. Attending were Ian 3AXH, Ian 3IDL, John 3AIG and Craig 3CMC..


A late arrival was Shaun 3VLY in time to assist the pack up during a quiet moment.

Here are some pictures.....




Solutions for connecting you...

- Ballarat's fastest broadband¹
- Affordable Chatphone VoIP phone service
- Great value cable television



For commercial subscriptions call Heather James on 0427 007 893, For residential subscriptions call our Customer Service Centre on 1300 366 248.

Terms and Conditions
Standard Neighbourhood Cable Terms and Conditions apply. ¹Speeds vary depending on a number of circumstances including network traffic, customer hardware, equipment and operating systems, download site traffic, download site bandwidth and size of file being downloaded.

<p>HEWITT & WHITTY Pty. Ltd. Outdoor Power Equipment</p>		<p>SupaSwift</p> <p>Ariens TIGA</p> <p>ECHO</p> <p>CHIPPER CHOPPER</p> <p>EP Engineered Products Group</p> <p>KOHLER engines</p>
<p>Cnr Carngam Road & Wiltshire Lane Ballarat VIC 3350</p> <p>Phone: (03) 5336 1344 Fax: (03) 5336 1027</p>	<p>Damien Hennessy Sales / Spares Mobile: 0417 313 811 Email: damo_611@hotmail.com</p>	
		

The BARG Inc. breakup dinner will be held at the 18th of December 2009 in our clubrooms.

The Club will supply the meats and rolls.....

Ladies are requested, as in previous years, a Salad plate or Sweets.

We certainly hope to see you there.....

BA'S AUDIO WORKSHOP PTY. LTD. ABN 59 007 427 778
trading as

BALLARAT
AUTO SOUND SPECIALIST

and
Radio Communications Systems Specialists
Supply and Service

8 EASTWOOD ST., BALLARAT 3350
Tel. 5333 4465 Fax. 5331 5851

BJS
Ballarat Joinery Supplies

contemporary craftsmanship | traditional service

Rob Knott
Director
0417 389 356

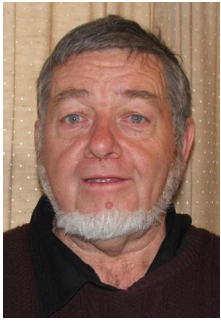
P.O. Box 146N Ballarat VIC 3350
Tel 5333 3008 **Fax** 5331 1411
Email rob@ballaratjoinerysupplies.com.au
Web www.ballaratjoinerysupplies.com.au

Anything FOR SALE or WANTED???

Why not send it to the Editor to be included in the next Newsletter.

Send to: Newsletter, BOX 1261, Mail Centre, Ballarat, 3354.
or
vk3kgl@barg.org.au

Next DEADLINE for articles is the 23rd of January!!!



QST Report with Craig, VK3CMC

Content review of current QST in library

QST Review 2009-11 DEC

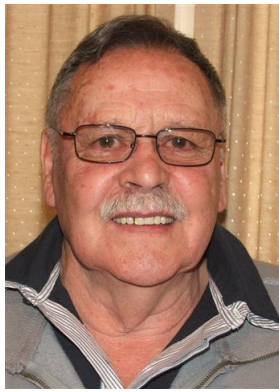


P4/5 The index.

- P9** Editorial Discusses the regaining of the 40M band back from commercial broadcasters. WARC 03
- P30** The Rockless, a VFO controlled low power transceiver.
- P35** Universal Frequency Calibrator.
- P38** Electro Magnetic Pulse and its Implication for EmComm. Is that bad ?
- P42** Soft ware modeling on old 4 el yagi for 2M, uses "YW" and "GAMMA" software.
- P45** Car window antenna mount for VHF/UHF mobile. No gutter mount.
- P48** The Finger Wiggle Paddle.
- P50** Repair & Calibrate Wattmeter slugs like the "Bird".
- P53** The Antenna Dipper.
- P54** Product Review. ICOM IC-7600 HF & 6M transceiver.
- P61** The Doctor. Lightning arrestors, Phased Quarter wave antennas, True & Magnetic NORTH setup. GAMMA & T matching a dipole.
- P63** Short Takes. "DEPICTION" Emergency Management software.
- P64** Hands on Radio. Exp #82. Antenna Height. Using "EZNEC" software.
- P66** Getting on Air. Using Window Transmission line feeders.
- P68** Hints & Kinks. Pigeon hole storages, Station grounding,
- P70** Vox Populi: Hands free using Voice Operated Transmitting.
- P72** Long Delayed Echoes on 80Meters.
- P75** Advanced Satellite Workshop.
- P79** Happenings: FCC sets precedent against power line noise testing.
- P88** Hows DX. Four new countries created.
- P90** World above 50Mhz. DX peditions of Summer.
- P96** Vintage Radio. Polar pioneer Bud Waite W2ZK [SK] 1908-1984.
- P98** Eclectic Technology. Digital operations-RSID. Win 7 update.
- P101** QST contents from Nov 1934, Nov 1959 and Nov 1984
- P103** Hamspeak Glossary of terms in this edition.

Another good months reading.

73 Craig, VK3CMC



Doug, VK3VBA

Presidents Report

Hi all

Sunday the 06-11-09 was a big event for BARG we had 7 candidates sitting for the Foundation License, including a young lad of 11years.

We had five pass with the other two close to a pass, hopefully they will try again.

Once again our members chipped in and I thank them all for the time and patience given to BARG.

Very special thanks to Craig CMC our co-coordinator for the event, most of our members would not realize how much time and effort that he puts into organizing and running this event it is not a case of just turning up on the day, a lot of preliminary work contacting students and the paper work associated with running exams organizing helpers - lecturers and of course the multitude of paper work associated with completing the course.

So with many thanks to the helpers for giving up your time and to make this event successful.

To Craig for your dedication to overseeing the complete running of this day and the work carried out previous.

Many thanks
Doug Raper
President



Merry Christmas and a Happy New Year



Well it's that time of the year when we rush around like there is no tomorrow, it's called the silly season why we call it by that definition I don't know, to me it's a very important part of the year.

It's a time of the year when families get together and reminisce and enjoy past experiences and special events in our lives, it's a time to forget any grievance with our friends, neighbours or relatives.

In the year of 2009 BARG have achieved lots of things and I believe all good things to the betterment of our group.

We have had a few little hick ups but we appeared to have moved on and not dwelled too long on our problems.

Our hard working committee I would like to thank for the dedication shown during the year, also our education group under the supervision of Craig, vk3cmc, I feel that we are taking a very professional approach to our duties in running our group.

Our next big event is our annual Christmas break up dinner, I am sure it will be a great night with good food – good fellowship and lots of laughs.

For any one traveling please be extra careful on the roads, and enjoy times to gather with your families and friends.

So from me, have a great Christmas and a great New Year and a safe one from your President Doug Raper.