

The

Call Letter

October 2015
Volume 41 No. 10



Note: October Meeting begins at 9:30

The Northwest Vintage Radio Society

Post Office Box 82379
Portland, Oregon 97282-0379

The Northwest Vintage Radio Society is a non-profit historical society incorporated in the State of Oregon. Since 1974 the Society has been dedicated to the preservation and enjoyment of "Vintage radio" and wireless equipment.

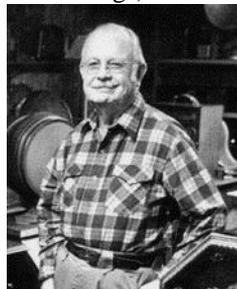
Membership in the Society is open to all who are actively interested in historic preservation. The dues are \$25.00 for domestic membership, due on January 1st of each year (prorated quarterly).

The Call Letter has been a monthly publication since 1974. It was originated with the founder, Bob Bilbie, and our first president, Harley Perkins. Through several editors and with the assistance of numerous society members, the Call Letter has continued to be a publication that informs members of the society's business and that supports the hobby of collecting, preserving, and restoring vintage radios.

Society meetings are held the second Saturday of each month at the Abernethy Grange Hall at 15745 S. Harley Ave. in Oregon City, Oregon. They convene at or about 9:30 AM for the purpose of displaying radios, conducting Society business, and exchanging information. Guests are welcome at all Society meetings and functions (except board meetings).

Other Society functions include guest speakers, auctions, radio shows, and radio sales which are advertised in the Call Letter and are held in and around Portland.

With each issue of the Call Letter, we remember Jim Mason, a charter member of the society who remained active until his death in 1999. A generous bequest from Jim's estate ensures the vitality of the Northwest Vintage Radio Society, and continued publication of the Call Letter.



Society Officers for 2015:

President	Mike McCrow (503)730-4639
Vice-president	Brian Toon (503) 266-5527
Treasurer	Ed Tompkins (503) 573-3895
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July

Table of Contents

A Letter from the President.....	2
Member Profile	3
Swap Meet Photos.....	6
The Aspiring Radiotrician.....	8
Swap Shop.....	12

On the Cover-

Great moments and memories from the September Show and Sale in North Portland. (see more photos on page 5)

OCTOBER FEATURE

Plan to bring a featured radio in October - it's tube type portable radios that are functional with their own (battery operated) power (must be self-contained battery power)

NOVEMBER MEETING

This meeting includes a Feature Radio show and nominations for 2016 officers. Don't miss it (9:30 at the grange hall)

DECEMBER MEETING

The December meeting is the annual Christmas Party. See more details in next month's Call Letter, or contact your vice president who is in charge of special events.

Visit our web site at www.nwvrs.com

Find us on Facebook: www.facebook.com/nwvrs

From the President

By President Mike McCrow

Holy Cow! How did it get to be October already. I hope everyone had a good time at the swap meet last month. I know I did.

First I would like to thank our two swap meet coordinators, Charlie Kent, and Rick Ryan for everything they do for our society. We wouldn't have a show and sale like this without all their hard work and planning. Making sure all the details are taken care of. Everything from signs, tables, electric cords, running the Auction and more, it takes a great deal of effort to make all this happen.

Also thanks to Dick Bixler for making sure our radio spot was on the air. I know Dick has been in close contact with the people at KKOY to make that happen.

Thanks to Sid Saul for manning the sign up table at the front stage. Also last but not least all the people who were there to help with set up and tear down. It takes a lot of effort and planning twice a year to have these events .

I can't thank you all enough. What a great event. I met some really nice people, found some good deals, and visited with many people, members and non-members alike. I'm looking forward to our swap meet next spring.

I hope to see you all at the October meeting!

Mike

Member's Profile

Russie Ofria

For my 6th grade class project at Canoga Park Elementary School (California), I chose to build a crystal radio. In search of a galena crystal and other parts, I popped over to a radio shop that was conveniently located across the street from the school, and asked the kind old gentleman where to get that stuff. When he learned of my project, he provided me with a 1N34A diode and enough enamel coated wire to wind the tuning coil. He also showed me plans to build such a radio using an oatmeal container. The most expensive part was a headset which I ordered from a surplus electronics mail order catalog. It amazed me that it tuned in several stations right from the first. I listened to KFWB for years on that set.

My first real radio was found in an abandoned farmhouse near Eagle Rock. My cousin lived there, and to pass the time we climbed over the hill behind his home and discovered an old homestead, obviously abandoned. Many people had been there before us and had trashed the place. Amongst the mess and debris, I spied a wooden breadbox radio.

As a boy, my curiosity was stronger than my concern for personal safety. Shortly after returning home from visiting my relatives, I took that radio to my room and immediately plugged it in. Nothing happened (at least at first). I fiddled around with the tubes for a moment and then gave up. I was preparing to pull the plug when sound began to come from the speaker. Static mostly, and it grew louder very quickly. I rushed to the radio and began turning knobs to find out which one controlled volume. One of them turned out to be the tuning knob and as I rotated it, a strong station blasted music to my ears. With much auditory discomfort, I tried the other

knobs. One of them shut the radio off, though I swear I could still hear ringing coming from the speaker. With no control over the volume, I figured the next thing to do would be to take the guts out and see what I could see. I didn't recognize a thing inside and under the deck. Back I went to the kind old guy at the radio shop, and asked his advice. Without even looking at the chassis, he said it's the "potentiometer". I learned a lot more than that from this guy. Over the next several years he taught me how to read a diagram, what the symbols meant, and how the components worked. He also showed me the simple troubleshooting techniques, which I still use to this day.

It was years later, I'd been through military service (I was trained by the Army as a computer repair technician) and came back home to re-establish myself in the community. One weekend, I joined a couple of friends for a morning walk through the Rose Bowl Flea Market. That place displayed an amazing assortment of vintage items, and one caught my eye. A Philco round top radio, which I learned later to be a model 90. It didn't work, needed some cabinet repair, but it seemed to be all there. Here we go again!



Took it home and tore into it. I had it working by the next day. I demonstrated it to anyone who was interested. My friends loved it and were so impressed by my successful repairs, that they began bringing me old tube powered pieces to fix for them or their friends. I wound up working my way through college by putting life back into guitar amplifiers, early radios and eventually anything electronic. At the same time, I was collecting radios – 1920's to 1930's vintage mostly. A few years later, there were about 50 radios in the house.

Then, I found a Victrola. It was purely mechanical/acoustic, so it didn't take much to get it working.

I was so impressed with the simplicity, yet beauty, of that kind of machine that I wondered what other ones were out there. That led to the “just one more” syndrome. After a few years of searching, there were at least 40 wind-up phonographs in the house.

One day in 1976, Don, a dealer whom I did some work for on radios for his shop, came by and asked if I could repair a jukebox. At this time, my confidence in troubleshooting abilities was high enough for me to answer in the affirmative, though I’d never seen the inside of a coin operated phonograph. A week later, he delivered a Wurlitzer model 1015 to my garage shop. Wow! This thing looked amazing! I knew right then what my next collectible would be. A week later, I called Don and told him his machine was ready. It played wonderfully and sounded fantastic. Its changing light patterns and bubbling tubes added a hypnotic aura to the pretty music coming forth from the speaker. This was truly an amazing sight and sound experience! And they had this back in 1946! Within a few years, there were over 50 jukeboxes in the house.



So, here I am today, surrounded by many amazing technological devices. My wonderful wife Lori, who is just as interested in these things as I am, sometimes makes fantastic finds through the internet, and off we go on another adventure!

Photos from the Show and Sale





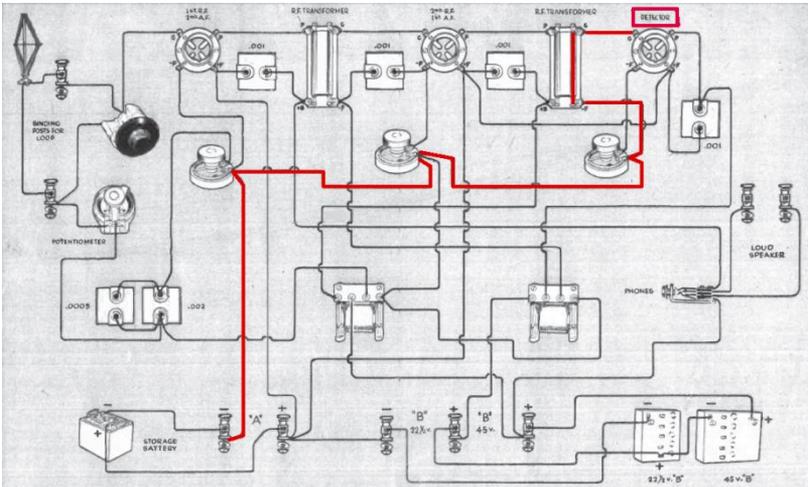
Aspiring Radiotrician

Mechanical Amplification

Tubes? We ain't got no tubes!

By Sid Saul

Before diving into this month's topic on early amplification, we take yet another look at our all *too* familiar mystery circuit. We have perhaps identified the mistake drawn by the author and identified a *reflex* radio circuit from the early 20's. One of our members commented that there should be a grid leak placed just before the detector. Grid leak being a grid condenser, typically a few hundred picofarad shunted by a resistor from one to five Megohms. The purpose being to create surges of signal into the grid and thus strengthening the audio output.

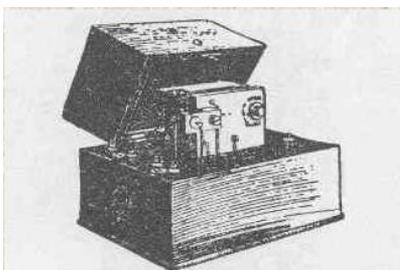


Another member commented that since the diagram did not list tube numbers, could this detector be the 00A tube as was sometimes the case. The 00A was after all the more sensitive detector. Let's take a look. The 00A detector being a soft

tube, one with less vacuum and containing small amounts of gas would have had its grid return connected to A+. The diagram shows this not to be the case. 01A tubes would be wired to A- as in the diagram. Both the 00A and the 01A would be wired to A+ if the grid leak resistor-capacitor were used. We may have to conclude that this detector was the 01A. I would never have imagined the interest this diagram would bring.

Now on to the topic of early amplifiers. An Amplifier is simply a mechanical or electronic device that increases the power of a signal. The telegraph signal may travel a few hundred miles without amplification, and telephones even less, both used amplifiers long before tubes. Telegraph used the simple relay. A relay by any definition is an amplifier. A simple mechanical relay and battery were placed between sender and recipient. The remote battery increasing the weak signal current from the sender some hundreds of miles away. The carbon microphone was widely used starting in 1890, and perhaps in a way not so well known today. Before the advent of the vacuum tube, the carbon microphone was considered one of the best solutions to telephone amplification.

Unlike other microphones, the carbon type does not produce signals in itself. Rather it is just a way of varying resistance. As a person speaks loudly into the mouthpiece, the fine carbon granules are shaken further apart, increasing resistance



The "Brown" Microphone Amplifier.

Magnifies telephonic music without distortion, and gives an amplification equal to that obtained from the use of two valves. The current consumption at 6 volts is about 50 milli-amps, and the resonant frequency of the reed is about 1,000 periods per second. This instrument can be used for all classes of telephonic communication provided it is not pressed beyond its power of reproduction.

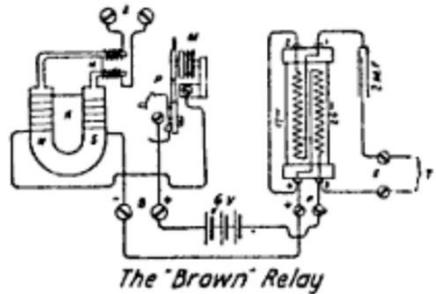
No.			
RR53/1	Brown's Microphone Amplifier, Type V (for valve sets), 120 ohms input, 120 ohms output.		£5 5 0
RR53/2	Brown's Microphone Amplifier, Type V (for valve sets), 2000 ohms input, 120 ohms output.		£3 8 6
RR53/3	Brown's Microphone Amplifier, Type V (for valve sets), 2000 ohms input, 2000 ohms output.		£5 13 6
RR53/4	Brown's Microphone Amplifier, Type C (for crystal sets), 4000 ohms input, 2000 ohms output.		£6 0 0

to battery current. Softer sounds returning the granules back together, reducing resistance. We can envision stronger battery current connected at the distant relay or repeater now mimicking the sounds entering the carbon microphone from the distant sender.

Did you ever wonder when testing old carbon resistors why their values are almost always higher than spec. Carbon composite resistors attract moisture over the years causing the carbon granules to expand away from each other. Farther apart makes for higher resistance, just as in the carbon microphone.

It wasn't long before patents were taken out for the mechanical amplification of weak radio signals. Crystal sets could now power horn speakers, and rocket ships could be sent to mars. Well maybe not the rocket ship thing.

The Sidney Brown company of England was well known for building headphones or telephone receivers as they were called in the day. They also sold mechanical audio amplifiers. After all it was a logical next step as they were making coil and magnet assemblies for headsets. Placing two phone assemblies at the pole ends of an electromagnet, and mechanically connecting this electromagnet to a carbon microphone in place of the mouthpiece with a metal plunger. Audio signals from a crystal set output would modulate the weak headphone assemblies now acting on the electromagnet.



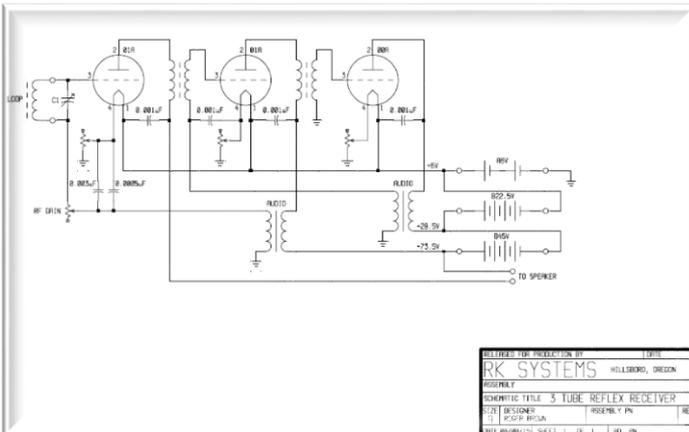
The microphone controlling the strong current from the battery. Enough current to power a horn speaker, and years before the vacuum tube.

These amplifiers were offered in various impedance ranges with 2000 ohms input and output most popular. Another more advanced model used a special carbon microphone with two chambers. As one carbon chamber was in compression, the other was in rarefaction, 180 degrees apart. This feeding push-pull into the output transformer and producing less distortion with increased power. Just think of the lucky person with a push-pull crystal set! Demand for all this fell sharply with the arrival of the vacuum tube with its better performance. Come to think about it, maybe future space travelers should stow away a few carbon microphones just in case.

So until next time from your Aspiring Radiotrician,
Sid

Diagram from Last month

This diagram was omitted from last month's Call Letter due to lack of space. Submitted by Sid Saul this pertains to the discussion of reflex circuits from last month's column. We appreciate Rodger taking time to draw this up.



SWAP SHOP (want ads)

I need a knob for the 1933 World Globe radio.
Raymond Holland, 6015 NW Perthshire Rd, Vancouver, WA
98663-1175, 360 695-6349, (C) 360 989-5981
Chev33radio@comcast.net

Service: Amplitrex tube testing service. Highly accurate tube testing with computer printout. Can test 211, 845 and other rare and hard to test tubes. Will trade testing for tubes, parts, etc. robertwstephens@frontier.com

Special Sale: Large collection of high-end quality radios that range from mid-1920s to late 1950s and into the 1960s for sale. Only NWVRS, PSARA club members and personal guests are invited! For appointment call Steve Berglund 206-244-6428

Wanted: Knobs for the Admiral Model 24A12 (10" TV, brown bake-lite cabinet). Contact Terry Collie at (503) 632-7895 or email tscollie@hotmail

Wanted: Escutcheon for a 1936 Zenith 5-S-29 Tombstone radio. Contact Dick at (503) 246-1062

For Sale: to purchase NWVRS hats, jackets, name badges, or T-shirts, please contact Wendy Kent at (503) 281-9335

**...it's always
a Sunny Day at...**

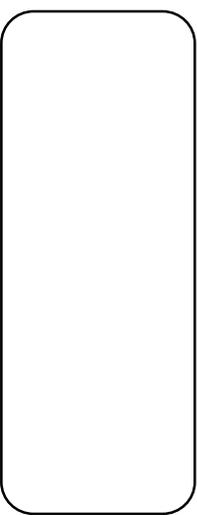


**In the Portland Metro area tune your
vintage sets to some of the
great music of the last 50 years.**

KKOV 1550 AM



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