The Call Letter

February 2018
Vol 44, #2

1931 Oregonian 5-Tube

The Northwest Vintage Radio Society

Post Office Box 82379
Portland, Oregon 97282-0379

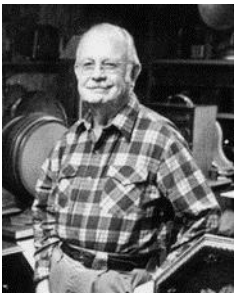
The Northwest Vintage Radio Society is a non-profit historical society incorporated in the State of Oregon. Since 1974 the Society has been dedicated to the preservation and enjoyment of "Vintage Radio" and wireless equipment.

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 2016:

President	Pat Kagi 360 909-7009	patkagi@yahoo.com
Vice President	Brian Wegener (nnn) nnn-nnnn	spudweg@gmail.com
Treasurer	Ed Tompkins (360) 573-3895	edtomp@Q.com
Recording Sec'y	Liles Garcia (503) 649-9288	landn2@frontier.com
Corresponding Sec'y	Mark Moore (503) 286-5224	mark@pdxhistory.com
Board member at large	Mike McCrow (503)730-4639	tranny53@frontier.com
Librarian	Damon Vandehey (503) 459-1777	
Call Letter Editor	Don Hanson	vanguard4@lycos.com

On the Cover

1931 Oregonian 5-Tube
Photo by Russie Ofria

February Table of Contents

Announcements:

February Meeting

The February meeting will start at 9:30 AM on Saturday, Feb. 10
Our February monthly feature will be: "Radios from Companies Known for Making Something Other Than Radios (e.g. GM, Firestone)"
February tech talk: Liles Garcia "AC Power Supplies for DC Farm Radios"

- **2018 dues need to be paid. Mail them in or bring a check/cash to the February meeting.**

Editor's Note

Please have next month's Call Letter Contributions in by Feb. 24.

Visit our web site at: www.nwvrs.com
Find us on Facebook: www.facebook.com/nwvrs

NWVRS Meeting Minutes - January 13, 2018

President Pat Kagi called the meeting to order at 9:30 AM. Members pledged allegiance to our nation's flag. Pat asked everyone to send in their NWVRS surveys. We are using a new speaker system for our meeting today that Jerry Hertel designed. Ron Kinder and Rick Yahrmarkt attended our meeting today and became new members. Welcome Ron and Rick!! David Pidwerbecki attended today as a guest. Welcome David!!

Brian Toon mentioned that Bill Weigel's mother fell recently, and she is recovering. Rick Ryan is recovering from a recent surgery. Damon is now on Twitter for contact. Joe Millward will be selling some console radios.

Pat mentioned that we need a new Swap Meet Coordinator. We also need to find some locations for our Swap Meets. The group discussed some possible locations for our Swap Meets. We also discussed having a radio repair clinic for members. The December meeting minutes were approved as printed in the January Call Letter. The Program Topic for our February meeting is "radios manufactured by companies known for other products". The Program Topic for today is "Your Favorite Radio Book ". Members showed and discussed the books that they brought.

Mike McCrow gave a Tech Talk on "All-American Five Radios ". Mike's talk drew a lot of interest from the group; and members gave him a round of applause. The meeting was adjourned.

Recorded by Secretary Liles Garcia

Calendar of Events

February 17, 2018. Salem Hamfair & Computer/Electronics Swapmeet. Rickreall, OR at the Polk County Fairgrounds. http://www.w7sra.com

March 10, 2018. Mike & Key 36th Electronics Show & Fleamarket. Puyallup fairgrounds exhibition hall, Puyallup, WA. http://www.mikeandkey.org/flea.htm

March 24, 2018. Microhams Digital Conference, Redmond, WA. http://www.microhams.com/mhdc/ (Tentative Date)

April 7, 2018. Yakima Hamfest. Yakima, Washington. http://yakimaamateurradioclub.com/yakima-hamfest/

April 7. Comfest Swapmeet. Richmond, BC. https://secure.eton.ca/rac/events/detail.php?event_ID=1904

April 14 & 15 2018. Communications Academy. South Seattle Community College, Seattle, WA. *This is an ARRL sanctioned event.* http://commacademy.org/

April 20-22, 2018. Idaho State Convention. Boise, ID. *This is an ARRL sanctioned event.* http://www.idahostateconvention.com/

May 6. Maple Ridge Swapmeet. Pitt Meadows, BC. https://secure.eton.ca/rac/events/detail.php?event_ID=1906

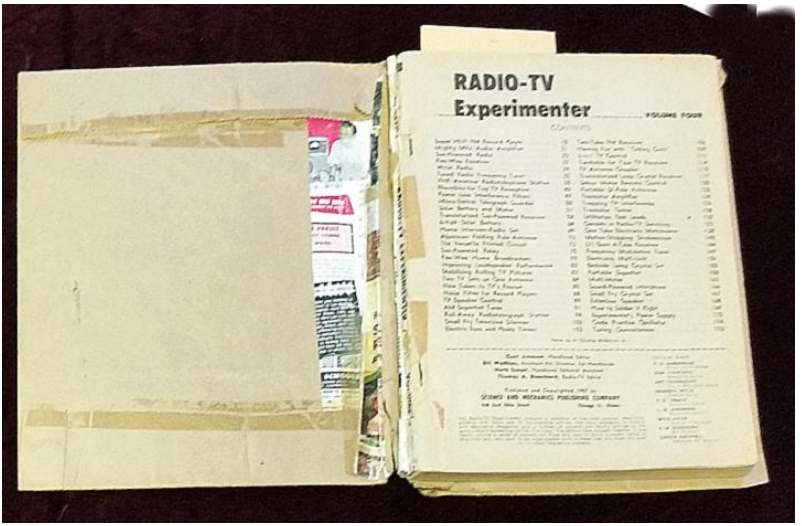
May 12. Stanwood Camano Amateur Radio Club Hamfest, Stanwood Middle School, Stanwood, WA. Contact: Fred Laun, w7pig@arrl.net http://www.scarcwa.org/

May 19 & 20. River Radio Campout 2018. Pateros WA. Sponsored by the Okanogan County Amateur Radio Club. Free "dry" camping along the Methow River at Pateros. Always the weekend prior to Memorial Day Weekend. w7orc1@gmail.com . http://www.w7orc.com/ . Contact Mike W7MCM, skippermike53@gmail.com . 509-689-3164.

June 1-3. SEA-PAC Hamfest and ARRL Northwestern Division Convention. Seaside Convention Center, Seaside, Oregon. *This is an ARRL sanctioned event.* info@seapac.org . www.seapac.org/

Monthly Feature: Favorite book on radio repair

Photography by Sonny Clutter

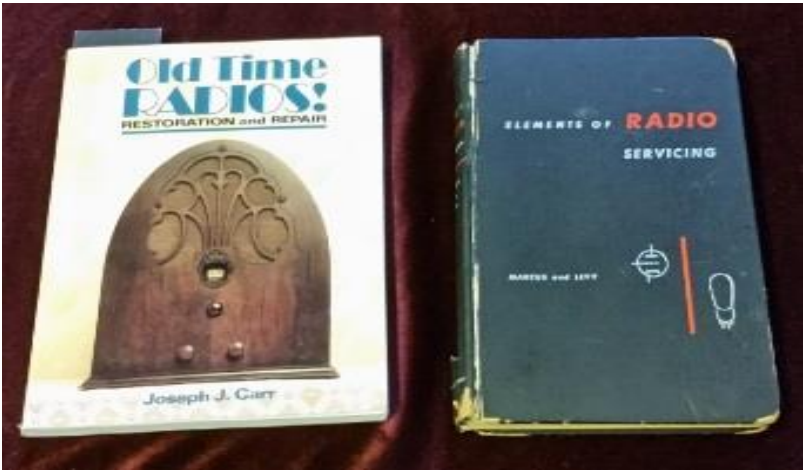


Sid Saul's favorite Book

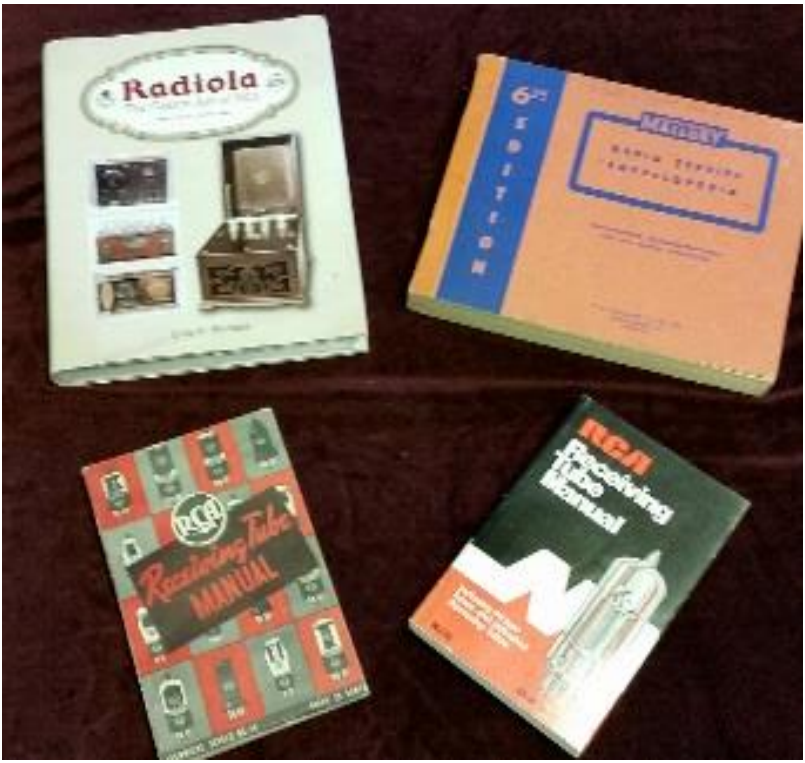
Blake Dietze's favorites

Brian Toon's favorite books

Al Shadduck's Favorite



Mike McCrow's favorite books



Sonny Clutter's favorites

Tips and Tangled Cords *No. 3*

IF Transformers #1
Contributed by Blake Dietze

IF Transformers. When they work properly, they're fine. There are far too many failure cases to cover in just one column, so I'm going to divide them into multiple articles. In this installment I'm going to cover the IF coils found in superhetrodyne radios from the 1930's and 1940's. These are typically in metal cans mounted topside on the chassis and usually have screw adjustments on top or on the side.

There are several common failure modes that can occur:

- Trim caps get dirty, corroded, or worse.
- Connection of coils can fail.
- One or more of the coils can be open.
- Breaks in the connecting wire insulation can short out to the chassis.

Dirty trimmers caps can short out if the dust is conductive. The conductive dust and debris can collect around the base of the trimmer (often out of site) shorting out the trimmer causing the resonant point of that side of the IF transformer to shift or short. You may be able to adjust the trimmer, but it may not peak properly. A thorough cleaning with a toothbrush and contact cleaner once disassembled usually corrects this problem. Use

caution when brushing the trimmers, the mica wafers can easily be damaged by the toothbrush or even a blast of compressed air.

Measure the resistance of both sides of the coil to ensure the coils are not open, if they are, start with a good inspection of the IF transformer itself. If the break is visible, and in a place where it can easily be addressed, fix it. If the break is not obvious and you have a suitable replacement, that may be your best bet.

If you don't have a replacement handy, or your unlucky enough to have a radio with an oddball IF frequency, there is still hope. A handy little trick is to replace the defective winding with a capacitor and resistor. If the primary is open, which is the most likely to fail since it's carrying high voltage to the plate of the previous tube, you can replace the open winding with a capacitor and resistor as shown in figure 1.

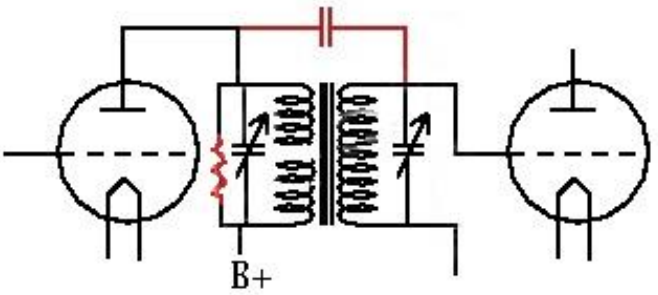


Figure 1. Replacing an Open Winding

By replacing the open winding on the primary (left side) with a capacitor around 150pF to 250pF (.00015uF to .00025uF) the signal can still pass to the grid of the next tube while allowing B+ to flow to the plate of the previous tube. You'll need a load resistor (shown in RED) of about 22 - 47KOhms (1 to 2 watts). You will only be able to peak one of the two trim caps and there will be some loss of signal strength, but this trick will work for most of

the radios you'll encounter. The same trick can be used on audio transformers, but I'll save that for a later column.

In the next column, I'll cover the IF transformers of the fifties and sixties, their unique issues, and how to address them. We'll focus on the K-Tran and J-Tran Inductively tuned units. Unfortunately these IF transformers are more likely to fail and can't be modified in the same manner, they usually have to be disassembled and modified. That's it for this time; "happy hunting" and "keep 'em playing".

Tips and Tangled Cords *No. 4*

IF Transformers #2 Blake Dietze

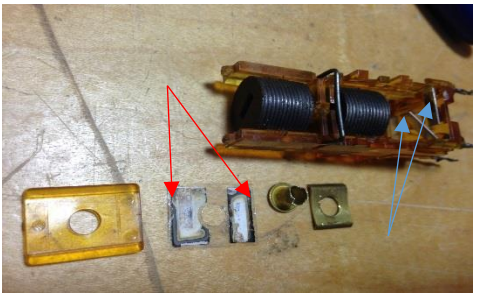
This month's column is a follow-on to the previous discussion on IF transformers. In this month's discussion I focus on the K-Tran (J-Tran, Other) inductively tuned IF transformers. Below is a typical example.

These inexpensive transformers have several common failure points, including ferrite core failure, cardboard tube failure, and internal capacitor failure. The first issues requires the replacement of the core if you have one (I have drawer full from scrapped units). The second issue can sometimes be resolved by

heating and reforming the cardboard with your soldering iron and re-threading with a fine thread screw or bolt (I use a nylon screw sourced at the local hardware store). The more predominate failure occurs in the fixed silver coated mica capacitor built into the base of the unit. The silver oxidizes, producing an intermittent or failed connection. Below is an example of the disassembled unit.

Fig 3. K-Tran IF transformer disassembled.

In order to restore the transformer, the repairman will need to remove the silver coated mica capacitor. Construction varies by brand, some require the removal of a single rivet, other will require cutting out a section of the base (I use a rotary tool). In either case be VERY careful with the wire connections, they break easily. The photo below shows a K-Tran unit with the mica removed, Note the black silver oxide. (red arrow)

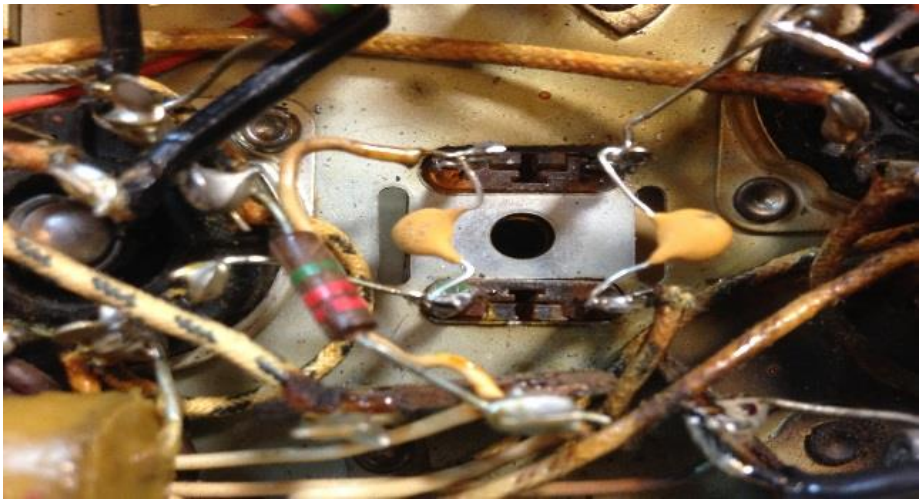


Once you have removed the mica sheet you will need to trim the 2 leads (blue arrow) on each side or insulate them. Don't trim too much or you will affect the strength of the leads. I use instant bond glue where the leads go through the base. Once this step is completed, reassemble the transformer. (Again, using glue as required) After remounting the IF transformer, it will be necessary to replace the internal capacitors. I tend to do this on the outside of the can for two reasons:

The internal base tends to be pretty flimsy.

If you should need to adjust the value, you won't have to remove the can again.

The typical value for the external capacitors is 100pF, but I have on occasion had to add or subtract from those values to peak the transformer during alignment. I use 500V silver mica or ceramic discs and I have used a range of values from 82pF to 120pF. Completed assembly shown below.



That's it for this column, "happy hunting" and "keep 'em playing".

Portland Radio Shop Tube Label

By Mike McCrow

I found this label on a tube in my collection. It is from a radio shop in Portland. C 1939.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