The Oscillator

"All the Electrons that are Fit to Flow . . . "

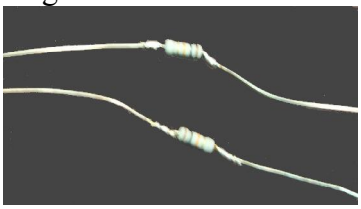
The Official Newsletter of the DVHRC December 2009

A 1930's radio in "kit form" - Part II

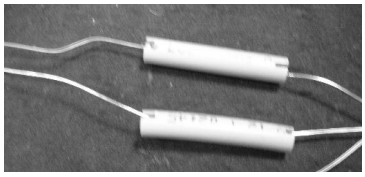
Restuffing Resistors

The Jackson Bell Model 62 had the original 'dogbone' resistors. All but one were well above spec and needed to be replaced. Like the paper caps, I wanted to restuff these as well.

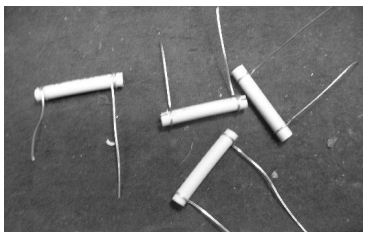
1. Find plastic or cardboard tubing of the same outside diameter as the old resistor, and an inside diameter that can accommodate the new resistor. For the resistors in this radio, ice maker tubing, available from your local home center, was just right.
2. Prepare the new resistors by soldering 4 inches or so of solid 18 or 20 gauge wire. You'll need this much because the leads will wrap around the tubing in addition to providing the lead length.



3. Cut the tubing to the same length as the original resistor. with a razor blade, then cut a 1/8" slot 1/4" from both ends. This slot will allow the lead to exit the tubing to start the external wrap around the end of the tubing.



4. Slip the new resistors inside the tubing and wrap the leads around the end of the tubing. Solder where the leads join on the underneath.



5. Paint the resistors with the appropriate body-end-dot value. I used acrylic paint available from craft stores for about $1 per bottle.

Heres a close-up of two of the resistors in place. One is restuffed, the other is the original that was still within spec. A pretty close match.

Capacitor Box

On top of the chassis is a square box that contains capacitors which I've given the imaginative name of "capacitor box".

First step is to give it the same spray paint and rottenstone rubdown as the chassis.

The drawing of the chassis layout indicates that two .1 mfd caps are in the box, and the two filter caps are in above-the-chassis cans. However, the chassis isn't punched

Delaware Valley Historic Radio Club

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The Oscillator is the monthly newsletter of the Delaware Valley Historic Radio Club.

We welcome information relating to radio and television history and collecting. Submissions should be sent by the 25th of the prior month to saegers@ptd.net. Personal views, opinions and technical advice do not necessarily reflect those of members, officers or Board of Directors of the DVHRC, nor is the DVHRC responsible for any buying or selling transactions.

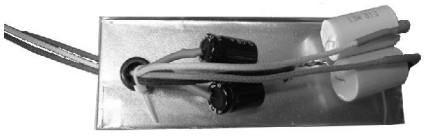
Dues are $20 per year and can be paid at a meeting or mailed to the above address.

for the two round cans, so I decided to house the two .1 caps and the two filter caps inside the box.

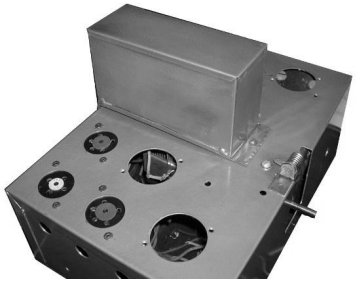
I think this makes sense for two reasons. First, the .1 caps are pretty big and would be hard to restuff and still look original. Second, the model 62 I'm using as a guide has 5 wires coming out. The negative side of the two filter caps go to ground plus one leg of each of the .1 caps got to ground. So, if the caps share a common ground wire, that gives a total of five wires.

I started by attaching the negative side of the filter caps and one side of the .1 caps together.

Then I attached cloth-covered wire using black for the common ground, red for the two filter caps and yellow and green for the two .1's. I used shrink tubing on all the positive leads.



Since the box was soldered originally, I soldered each corner with a



heavy-duty soldering gun. Two machine screws later and its in position on the chassis.

Coils

Next I wanted to check out the coils – there are four with this set. They were already numbered 1, 2, 3 and 4. I color-coded each connection with dots of paint.

I also replaced the wire that connects to the grid cap of a nearby tube with stranded wire that has a vintage look. (Always use stranded wire where the wire is subject to movement).

According to the schematic, three of them are identical: one winding is 3.6Ω, the other 20Ω. The fourth should have windings of 3.6Ω and 12Ω. I then took readings with my DVM and recorded the readings in the table that follows.

You'll note that none of the coils are open, which is good news. However, some of the readings are pretty far off of the values on the schematic. Coils can't drift like resistors, can they?

Looks like another discussion for our technical topic that Lewie Newhard and others can shed some light on. More next month.

1	Yellow	Red	Black	Green
Yellow				5.2
Red			14.2	
Black				
Green				

2	Yellow	Red	White	Black	Green
Yellow					36
Red			5.3	5.3	
White				1.9	
Black					
Green					

3	Yellow	Red	White	Black	Green
Yellow					56
Red			4.4	4.1	
White				0.5	
Black					
Green					

4	Yellow	Red	White	Black	Green
Yellow					36
Red			3.9	3.8	
White				0.2	
Black					
Green					

Tube Donations Needed

Your club needs the following tubes to replenish the club's inventory: 6A8G, 5W4, 6F6, 6FS5GT, 6B5, 5Z4, 6Q7, 6Q7G, 5Y4G, 5Z3, 12AX7, 6E5, 12Q7GT, 13EM7. 15EA7, 6AN8, 6U8A, 3A3, 5Y3G, 35Y4, 50A5, 6SQ7, 14B6, 6EQ7, 6R7, 7A7(XXL), 83V, 6BA6, 6CS6, 19T8, 12SQ7, 6V6G, 6AS11, 50EH5, 6C5, 1LC6, 1LE3, 7B7, 27 GLOBE, 6A8G, 11BM8, 3Q5, 6JB6, 5AR4, 1L6, 1B6, 6AQ8, and 6HR6. Contact Dave Dean or bring them to a meeting.

Meter Movement Needed

Pete Grave has donated a TV-3C/U tube tester to the club. To make it functional, it needs a replacement 50 microampere, 1100-1200 ohm meter movement. Measurements are: Face: 4 5/8" wide by 4 1/8" tall and 1 5/8" overall depth. Glass area is 4 1/8" wide by 2 1/4" high. The hole in the face panel is 2 3/4" diameter. Meter connection studs are 1 1/2" apart on center. The round back part of the movement is 1" deep. There is a 6/32 mounting stud on each rear corner, but that is not critical.

What is most important is:

- the 50 microampere rating
- the internal resistance rating
- overall size of the face
- mounting hole size

If you have something that might fit the bill, contact Dave Dean at 610-933-0330 of dw.dean@verizon.net. If you are unsure of the internal resistance, do not check with an ohmmeter as you will damage the movement. Contact Dave and he will explain how to check it safely.

November Meeting Minutes and Notes

Had to spend a little time catching up on club finances due to my absence at the last meeting. Received $90.00 from tube sales from the recent Hi-Fi show. Mike Koste and Dave Dean attended representing DVHRC. The meet was relatively small; however, it has potential to grow. Also took in $220.00 from capacitor sales thanks to Ted Sowirka. All this helps the club treasury. Speaking of the club treasury, we are in decent shape at this time of the year. We have roughly $4900.00 in the checking account. This includes the recent Kutztown Radio Show and Swapmeet. The club turned a profit of about $600.00 from Kutztown after all expenses were calculated.

Regarding Kutztown, it may appear the club's return has been lower than past years. We did make some recent changes in how we are operating the show and we have incurred some additional expenses doing so. We did buy the "OLR8EO" magnets for the May 2009 meet and we purchased a new stock of DVHRC shirts for the Fall 2009 meeting. These two items bought down our bottom line a little - but not by any amount we need to worry about.

Dave Dean and Mike Koste reported on the recent Hi-Fi show. This is another outreach effort by the club. If you remember we had a table earlier this year at North Wales Community Day. Your club had a table set up at these meets, with DVHRC brochures and information available. We hope to generate some members, along with good will, out of this effort.

Ray Facinelli won the raffle radio at the September Kutztown meet and he was at our meeting to collect his prize. Congratulations to Ray.

November means elections and DVHRC has its election for board members at the December meeting. This makes November nomination time. Here are the candidates nominated to serve as the

Board of Directors for the year 2010: Stan Saeger, Dave Abramson, Dave Dean, Mike Koste, Dave Snellman and Walt Peters

The general membership will vote for five to serve as the Board for 2010. The board will then choose officers for the year.

There was some discussion about an email list being set up for members to exchange information, request information, or listing parts needed for a project. Everyone was reminded the club has an "email reflector" in place already. It doesn't get the use it should. See an article later on how to sign up.

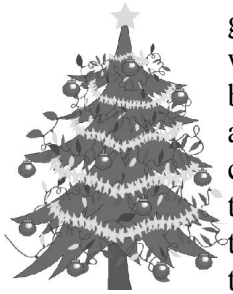
We had some show and tell items. Check out the "Radio Master" books, part of the Federated Purchasing manuals. These manuals, or catalogs, are full of good information. Part numbers and the like can be found. You don't need the most current ones, after all, you looking for info on old radios. Another idea would be old electronic catalogs, like the Newark Electronics one in our recent auction.

We also had a demonstration on how to determine the "pin-out" of an unidentified transformer. Lots of discussion on this, as well as, some useful tips on transformer health. Make certain the bolts holding the
transformer to the chassis are tight - this will help with heat dissipation. Rust can affect heat dissipation too.

In closing, remember dues for the year 2010 are due now. They are still $20.00 for the year. If you want to participate in the election you must have your dues paid.
- Dave Snellman

Christmas Party

The annual Christmas Party and gift exchange will be December 8, at 7:30 PM at the Telford community center. If you want to participate in the gift exchange, bring a wrapped present, worth between $15 and $20. Food and fun for all who attend.



The Reflector

Looking for a certain tube? Can't remember which club member said he's familiar with the set you're having trouble with?

The Reflector is a mailing list system that allows DVHRC members to send an email to all other members who have signed up for the service.

Here's how to sign up:

1. Go to www.dvhrc.info, click "Contact Us", then click the Reflector link near the bottom.
2. On the Reflector screen, enter your email address, your name, and a password. Remember your password. You'll need it only on rare, but important occasions.
3. You will receive a "confirm" email. Simply hit "reply" to activate your account.
4. You will then receive a "Welcome" email that includes useful information including your password. Keep this for future reference.
5. If you forget your password, you can recover it at http://mailman.qth.net/mailman/options/dvhrc/
6. You will remain on the list until you unsubscribe, your address starts bouncing excessively, or we throw you off. (Unlikely, but you never know.) Once you're signed up, you will get an email notifying you.

To send messages to subscribers, email dvhrc@mailman.qth.net. You can always go to the DVHRC Contact Us page to get the email address if you forget.

The Reflector is administered for the club by Al Klase. He can be contacted at al@ar88.net.

DVHRC Golf Shirts

The club is taking orders for collared golf shirts with the DVHRC logo embroidered on the breast pocket area. Cost is $30 prepaid for sizes M, L, and XL and $33 for XXL and 3XL.

Contact Stan Saeger at 610-967-5340, saegers@ptd.net or see him at a meeting to order.