

**All the Electrons that are fit to flow.**



# OSCILLATOR

The Official Newsletter of the DVHRC

Vol. 12, No. 7, August, 2004

## September Kutztown, Yard Sale Finds at the DVHRC

### DVHRC Meeting Notes and Minutes

By Dave Snellman

For July the theme and substance of the meeting was our annual tailgate auction. We started a little earlier than usual – at 7:00 PM. We did this in hopes of getting through all the tailgaters before darkness prevailed. Well, we were close, but darkness was fast on our heels.

We had about 15 tailgaters taking part in this annual event. Transistor radios, console radios, AK's, Zenith's, RCA's and all kinds of parts were up for grabs. A real nice RCA console, featuring the "Magic Brain" found a new home. An "Elvis" era Shure microphone, complete with a shock mount, was up for grabs. Audio gear was present. A "Magna-Cord" recorder was one item I noted.



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**NEXT MEETING AT TELFORD, AUGUST 10TH, 7:30PM**

# Meeting Notes continued from Page 1

No business was transacted at the meeting

In terms of club business the only item to report it we were not successful in our bid for the estate mentioned in last months newsletter.

The August meeting will be the second Tuesday of August at the Telford Center at 7:30 PM. We will be formalizing plans for the September meet at Kutztown. We will also host a "show and tell" of recent yard sale items collected by our members. See you on the 10th.



Newsletter of the  
Delaware Valley Historic Radio Club  
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New Britain, PA 18901  
www.dvhrc.org

The Oscillator is published monthly by members of the non-profit DVHRC. Its purpose is to provide information on vintage radio technology.

We welcome and solicit information relating to radio history or collecting. Submissions should be on fully revised, typed and accompanied with clear photographs or diagrams. Material on discs should be in Word and pdf formats.

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Personal views, opinions and technical advice offered in this newsletter do not necessarily reflect those of the members, officers or Board of Directors of the DVHRC, nor is the organization responsible for any buying or selling transactions incurred.

To join DVHRC dues are \$20 per year. The membership year runs January - December. Please mail us the club P.O. box above. Meetings are held the second Tuesday of the month at 7:30pm at the Telford Community Building, Telford, PA.

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Material submitted is subject to acceptance and editing by the editor. A full page article is approximately 400 words. Please photos may be submitted for scanning. JPG files should be under 100K.

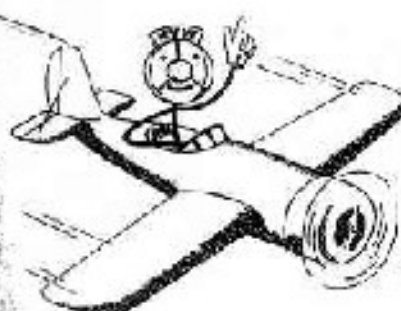


CHICAGO



FROM CHICAGO TO

**KYW**



PHILADELPHIA



PHILADELPHIA

WILL BROADCAST

FROM **PHILADELPHIA**

BEGINNING **DECEMBER 3<sup>rd</sup>**

● INHERITING OVER HALF A MILLION LISTENERS

ON THE  
RED NETWORK

KYW becomes the new Philadelphia outlet of NBC's Red Network! There being over a half a million inveterate NBC listeners in the Philadelphia area, KYW is the first station in radio history to broadcast its inaugural program to a ready-made audience of a size to interest alert advertisers.

**KYW**

10,000 WATTS  
1020 KILOCYCLES

## Restoration of a Nice, Clean, Carefully Stored Atwater Kent Model 55

### By Lowell Schultz

After spending some grueling days restoring some Adogs@ that were buried in dust, missing components and a general mess, I needed a nice, easy set to just check out and it would work just fine. I had the perfect candidate that would be a Apiece of cake@..... a pristine looking Atwater Kent Model 55 of which the owner said A This belonged to my Grandfather, who kept it in a place of honor in his living room. I have carefully stored it in my attic for several years and would like you to check it out so I can play it.@

I put the set on my work bench, removed the bottom plate, plugged in the speaker and slowly powered it up with my Variac. To my surprise, there was no hint of sound from the speaker. Some probing with the multi-meter revealed that the tubes had filament voltage but there was no B+ any where in the set and B+ on only one of the speaker socket pins. After I carefully cleaned the pins of the speaker plug and the contacts in the socket, B+ appeared throughout the set. However, the only sound from the speaker was a faint hum.



OK. Time to apply the signal tracing procedure taught in Radio Repair School...start at the output stage and work backward toward the RF stages to find the faulty stage. Applying a 400 Hz signal to the grid of the audio driver tube resulted in an output that rivaled that of a rock band guitar with the buzz cranked to max. Some probing with the multi-meter set to the Ohms range (after making certain that the set was turned off) showed that the type 45 output tubes had an open cathode resistor. The schematic showed the resistor to be a 7.5 k, 2 watt resistor. With some digging in my A large resistor@ box I found a suitable resistor and soldered it onto the terminals. Now the tone from the signal generator tone came through the audio stages "clear as a bell" and I thought I should have a nicely functioning set.

Not so. When I tuned in KYW, the announcer spoke with oatmeal in his mouth. From previous experience in listening to that news station, I knew that was not the norm and the distorted sound must be caused by another

listening to that news station, I knew that was not the norm and the distorted sound must be caused by another problem in the AK 55. Leaky coupling capacitors are a likely candidate for distortion and some resistance checks located a coupling capacitor in one of the cans that measured about 500 k Ohms B almost more of a resistor than capacitor. I disconnected the leads from the can and soldered in one of the yellow caps I had acquired from Ted, our club Acap man@. The KYW announcer sounded only slightly more clear.

Back to signal tracing. The audio stages amplified clearly, but distortion appeared when I applied a modulated RF signal into the antenna input. After more voltage and resistance measurements I found that the 100 k Ohm cathode resistor in the detector stage measured 450 k and replaced it. The KYW announcer came in clearly. All right!! It=s working fine. Install the bottom plate and get to the next set.

But wait a minute! The volume suddenly dropped way down and attempting to bring it back up by adjusting the volume control caused awful Ascritches@ from the speaker. Obviously the volume control was dirty and needed to be simply washed out. In this case, that was easier said than done since the control is tightly enclosed and the cover had to be removed to clean the wiper. Taking the cover off required first removing the volume control, which could only be done by removing the front panel, which required removing the knobs and then un-soldering the wires. After disassembling and cleaning the volume control wiper, the process was reversed to put the control back into the set. The volume change was then smooth. However, the drastic signal A drop out@ occurred again during checking of the volume control.

Oh great! Now I have an A intermittent@ to deal with. After much probing and wiggling of components I finally found a fine wire-wound resistor with a poor connection in the cathode circuit of the RF stage. That resistor was replaced and the output remained steady. The set then had good sensitivity, clearly picking up several stations with good tone. I put the bottom plate back on and the restoration was complete.

A piece of cake!!

## **Kutztown** **Antique Radio Meet**



**September 17th and 18th**

**Call 570-385-0104 for information and reservations**

## DVHRC CAPACITOR SALES

PRICE CAPACITY	VOLTAGE	LIST PRICE		CLUB MEMBER	
		QTY/25	EACH	QTY 25	EACH
.001	630v	\$7.20	.35	\$6.00	.28
.0047		\$7.50	.35	\$6.25	.29
.0068		\$7.60	.36	\$6.35	.30
.01		\$7.80	.36	\$6.50	.31
.022		\$8.30	.37	\$7.00	.33
.033		\$8.60	.42	\$7.25	.35
.047		\$9.00	.43	\$7.50	.36
.1		\$9.60	.48	\$8.00	.48
0.22		\$18.00	.86	\$15.00	.72
0.47		\$24.00	\$1.06	\$20.00	.96
1.0		\$31.20	\$1.50	\$26.00	\$1.25

### ELECTROLYTICS:

		QTY/10	EACH	QTY/10	EACH
10	160v	\$6.60	.70	\$5.50	.64
22	160v	\$7.70	.90	\$6.40	.75
33	160v	\$10.10	\$1.30	\$8.40	\$1.01
47	160v	\$11.50	\$1.40	\$9.60	\$1.16
10	450v	\$9.00	\$1.10	\$7.50	\$1.10
22	450v	\$13.30	\$1.45	\$11.20	\$1.20
47	450v	\$21.60	\$2.50	\$18.00	\$2.10
100	450v	\$34.50	\$3.20	\$28.50	\$3.85

**Prices reflect 20% savings with DVHRC membership!**  
**Available at all club meetings!**



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