

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



# OSCILLATOR

The Official Newsletter of the DVHRC

Vol. 14, No. 9, January, 2006

## Tech Talks Return to the DVHRC

### December Holiday Party and Election Results

Reported by Dave Snellman

The regular monthly meeting of the DVHRC was held on December 13th at the Telford Community Center. We dispensed with the usual business portion of the meeting to allow members to partake in the annual holiday party feast. Lewie Newhard and Ally, this year's food committee, did a yeoman's job with the food. Club members furnished drinks and deserts. Members made short work of the food. Everyone seemed to enjoy the evening's festivities.



As announced in the December *Oscillator*, we had the annual election for board members who will serve for the year 2006. Ballots were distributed to all members in good standing.

Dave Abramson – President  
Mike Koste – Vice President  
Dave Snellman – Secretary/Treasurer  
Lewie Newhard – Board member  
Dan Schwartzman – Board member

From the field of six nominees chosen last month, the following were elected to serve on the board for 2006:

Mike Koste, Lewie Newhard, and Dan Schwartzman will

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#### Next Meeting Program

Series Filament Circuits  
with Lewie and Steve  
Auction

Telford Community Center  
January 10th, 7:30pm

*Newsletter of the  
Delaware Valley Historic Radio Club  
P.O. Box 5053  
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, education, information and communication with collectors and providers of 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 Jpg file sizes.

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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 to the club P.O. box above. Meetings are held the second Tuesday of the month at 7:30pm in the Telford Community Building, Telford, PA.

#### **DVHRC BOARD OF DIRECTORS**

Dave Abramson  
Mike Koste  
Lewie Newhard  
Dr. Dan Schwartzman  
Dave Snellman

#### **FOUNDING PRESIDENT**

Jay Daveler

#### **OFFICERS**

President: Dave Abramson  
Vice-president: Mike Koste  
Secretary/Treasurer: Dave Snellman

#### **OSCILLATOR EDITOR**

Dave Abramson

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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 coloring. JPG files should be under 100K.

will comprise a newly formed program committee to provide activities for our monthly meetings.

The holiday festivities also included a gift exchange. Anyone who brought a gift was issued a ticket. As the numbers were called, the members came forward and selected a gift from the table. While no one went home with a "Spartan Bluebird," there were some nice items that found new homes.

There was no auction due to the holiday festivities.

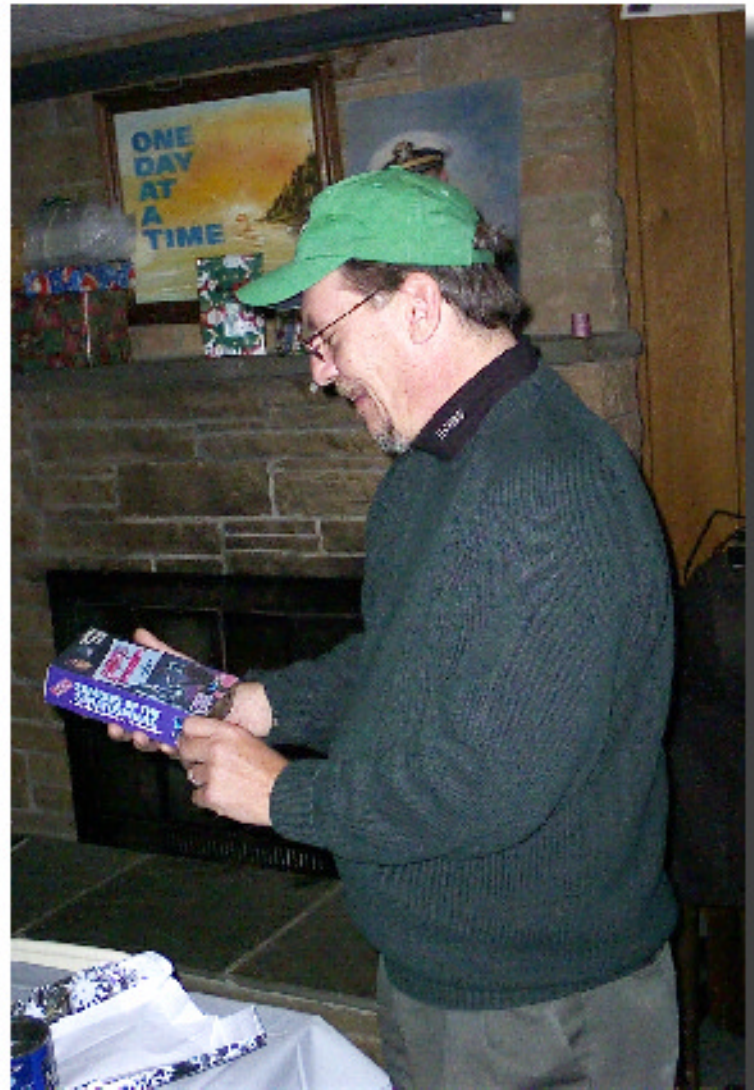
Next month, January, is membership month.

Remember your annual dues are due at that time. Dues are \$20.00, payable to DVHRC. We do not pro-rate memberships.

Your dues provide the club with the funds needed to publish the "Oscillator."

They also pay for the rental of the meeting hall as well as our insurance policy. For those already paid, you should see "2006" on your mailing label. If not, you probably owe for 2006. For those who send their dues in the mail it may take an extra month to update the mailing list.

January's meeting will be held on January 10th, 2006 at the Telford Center, at 7:30 PM.



## Series Filament Circuits by

Lewie New hard

Steve Holota

One in a continuing series of service articles

Too often, small, yet important things are overlooked when servicing non-transformered table model radios. Take filament voltage for example.

In order for a vacuum tube to operate within the manufacturer's parameters, the heat must be operating at or near factory spec's. Too little heat can negatively affect conductance in a manner that can hinder radio sensitivity, provide poor audio or cause oscillator trouble. Changes in filament resistance due to age, shock or use can alter the voltage drop across the tube filament and render the drops across other tubes heaters uneven.

A tube checker will often show these "bad" tubes to be "ok" but the tube tester supplies "unlimited" current at a specific heater voltage. Only an ammeter in series with the filament can determine if it draws too much or too little current at the manufacturer's voltage. The voltage and current specs can be found in a tube manual and are universal for a given unit.

Let's not forget that a filament with a higher than normal internal resistance causes a shift in voltage drops across the other tubes. This can be shown as a see-saw effect between set tubes.

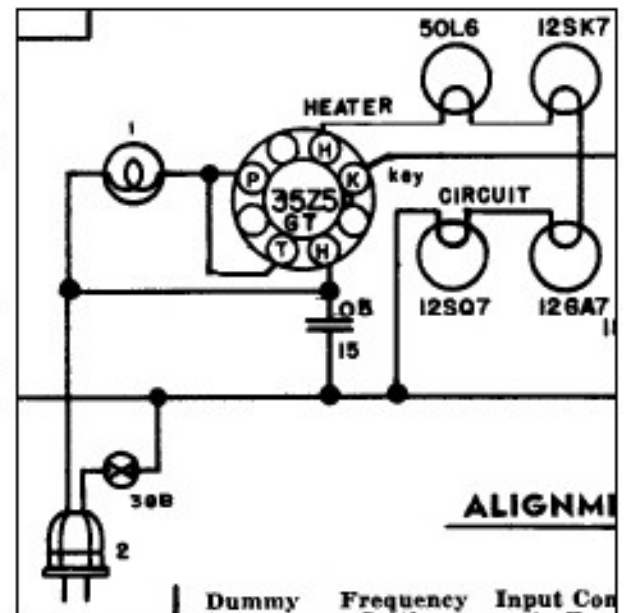
If the internal resistance of the heater is too low as in a short, the drop is too low, sending the rest of the voltage to the other tubes. A simple check across filaments with a voltmeter can determine if the string is "out of whack".

In a typical 150ma filament string there is only one current path, and many tubes were designed as sets of tubes. And older radios were often engineered to operate at 110v AC. The Beitman's drawing shown is a Crosley 52TE filament circuit from the era.

It can be suitable to replace a 35C5 with a 50C5, or a 35L6 with a 50L6 to absorb the "extra" 15 volts when operating at today's 125v AC line supply.

Even trickier can be a 1.5 v filament operating at 1.25v which can be hard to spot when using an analog meter. Some tube testers such as the Hickock 700 series can accurately monitor heater current by utilizing the supplied jacks.

OHMS law can then be applied to achieve correct values.



be  
as

Improper dial lamp replacement can also be problematic. Lastly check for a proper line cord. A resistor cord must be the right one for the unit. It can be an idea to substitute a resistor of proper wattage and a regular cord since resistor cords are not on the list of many restorers' parts, and can damage a unit if a "lay" person replaces it.

Our thanks to Lewie and Steve for the first of their series of service articles. If you would like to submit a service article like this, just email it to [dtatv@att.net](mailto:dtatv@att.net)

## More Christmas Party Photos







## DVHRC RADIO STORE

CAPACITY	VOLTAGE	LIST PRICE		CLUB MEMBER PRICE	
		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

**AND NOW AVAILABLE; LINE CORDS, DIAL LAMPS,  
TUBES, DVHRC SPORTSWEAR**

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