



Dedicated to the Preservation and Education of Wireless, Radio, Television and Associated Equipment

Volume 29, Issue 2

The March 11th meeting is at the Miller Library in Castle Rock

March/April, 2018

Vintage Voltage Expo
Sunday, March 18th (not 25th)
Ramada Plaza Convention Center
(I-25 and 120th Ave)

2018 CRC Annual Show and Competition

The 2018 CRC Annual Show and Vintage Voltage Expo is coming soon! This year's event will be at the Ramada Plaza Convention Center at I-25 and 120th Ave (same as the last few years).

This year's special category will be **Unrestored Radios** from 1960 or earlier. Got a set that doesn't look half-bad, even though nothing has been done to it? Bring it in! Got a different set that you'd like to show off? It probably fits one of these categories, so bring that in!

Contest Judging Categories		
<u>Specialty: Best original condition</u>		
Accessories	Bakelite	Battery (1926-1929)
Battery non-portable (1930-)	Catalin	Cathedral
Classic Audio	Communication Gear	Console (Full-length)
Console (High/low boy)	Crystal Set	Homebrew
Kit	Metal Box (1920s)	Metal Case
Military	Novelty (Transistor)	Novelty (Tube)
Phonograph	Plastic (Tube)	Portable (Post 1938)
Portable (Pre 1939)	Pre 1926	Speakers
Television	Telephony & Telegraph	Test Equipment
Tombstone	Transistor	Tube/Parts Display
Wooden (line-powered)	No Judging (Display only)	Best of Show
Best Restoration	Most Educational Display	People's Choice

Judging criteria:

- Exterior condition
- Interior condition (if visible)
- Presentation: how well displayed, documented, etc.
- Rareness: few are in existence
- Uniqueness: novel, not many like it

Note that these criteria are weighted, with an emphasis on **condition** and **presentation**. Preparation counts!

Every radio counts! Ribbons for top entries in each category as well as a Best of Show plaque will be awarded as a result of paired member judging.

Take advantage of this opportunity to show off your stuff! We have yet to run out of space for the display of radios, so dig deep and bring a bunch with you!

CRC Show Schedule:

Doors open/setup 8:00
 Registration 8:30
 Judging Begins 10:00 (sharp!)

For early registration, email your information to:
 Alexis Alexandridis (alekosalexand@gmail.com)

Variable Voltage Power Supply / Battery Replacer

Submitted by Rich Kuberski, CRC member

Volt-O-Matic? What's that? Well, way back in the early part of this century when I first joined the CRC (2002,) I began to think I might be clever enough to ac-

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COLORADO RADIO COLLECTORS ANTIQUE RADIO CLUB

Founded October 1988
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Message from the President

Wayne Russert

It seems winter has finally arrived and lawn mowing is still months away so it's a good time to light the fire and watch the Winter Olympics in high definition, wide screen and living color. I wonder if Colorado folks in 1924 could tune their 3 dial TRF sets to KLZ (833 KC) and hear that the first gold medal awarded in the first Winter Olympic Games in France went to an American winning the 500 meter speed skate.

KLZ was broadcast out of the Reynolds home on S. University Blvd. in Denver. He had erected two 80 ft. towers around his house to support a "flat-top" transmitting antenna. Most of the entertainment broadcast was Reynolds playing the sax. and violin while his wife Naomi played piano.

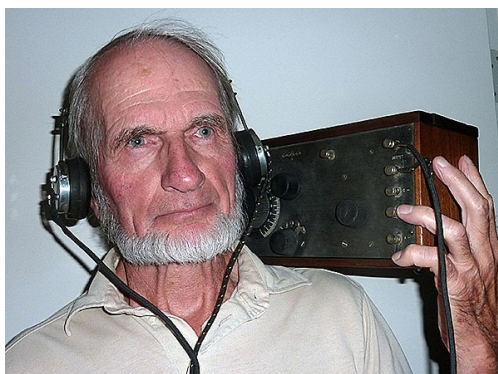
Can you imagine the reaction of your neighbors if you whipped up a pair of 80' towers on your lot today?

KLZ later moved on up to the Shirley-Savoy hotel with a really big antenna on the roof.

On a cold night you might have also been able to pull in KFKA from the Colorado State Teachers College in Greeley.

Ah, the good old days. Catching a few minutes of Naomi's piano on your headphones before the "A" battery died.

Speaking of old radios, we're less than a month from the **Vintage Voltage Show**. Still plenty of time to put the finishing touches on your award winning display(s). Remember that the specialty category this year is **"Barn Find Radios"**. Also enough time to squirrel away some of your beer money for that special



purchase you'll make in the sale area. The usual CRC members will be managing the show with VP Dave B. making any final important decisions.

The club has also been contacted by an old gentleman in Arvada who has 10 assorted radios in his basement that he wants to sell. They range from consoles to crystal sets. Rich K. and I visited him last week and we may bring some of the smaller radios to be auctioned at the March meeting if he agrees.

Since the meeting will be at the Castle Rock Miller Library with its easy-in/easy-out ground level access there's no reason not to truck in some of your heavier raffle or show-n-tell items. The library is open early so we have plenty of time to move in.

See you all in Castle Rock at 1 PM on Sun. March 11.

"We crave for new sensations but soon become indifferent to them. The wonders of yesterday are today common occurrences"

Nikola Tesla



CRC CONTACTS

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NOTE:	at = @ in email addresses

Upcoming Events

3/11, 1PM	Meeting
3/18, 10AM	Show
<i>Previously published date of 3/25 is incorrect!</i>	
5/20, 1PM	Meeting

CRC MEETINGS

Meetings are held on the 2nd Sunday of every other month starting in January (except May is 3rd Sunday) at 1:00 pm. The meetings consist of business, "show & tell", raffles, auctions, swap meets, technical discussions and other subjects of interest

CRC MEMBERSHIP

Annual membership in the CRC runs from July to June. Dues entitle members to attend meetings, "The Flash!" our newsletter, discount book prices, participation in our spring show and Fall auction. Current annual dues are \$20. New memberships will be prorated to the following June.

(Continued from page 1)

tually restore an old radio to working condition. Not having an electronics background, it was harder for me than for the rest of the wizards that belong to the club. I had yet to make acquaintance with many of the other “smart guys” and was on my own, so to speak. That is, me and my computer searching the internet for hints on how to do things. I found an article on the web about using a variac to slowly power up old radios as well as using an isolation transformer to avoid shocking yourself on a hot chassis. At a club auction, I bought both of these things, but the variac was just a bare unit, so to make use of it I had some work to do. I came up with making a single unit that had an isolation transformer, a variac, an inline fuse, taps for test leads, etc.. I also thought it would be cool to watch the voltage coming up as well as seeing the load increase with an amp meter. Fortunately, I had both of these meters in my junk box. This was not a complex project so I whipped it up (Figure 1.)



Figure 1

It looked reasonable and worked just fine. It was then that I thought it ought to have a name. Thus, the first *Volt-O-Matic* was born. Over the years I acquired more variacs and meters, etc. and constructed several more variants. The final look depended on the enclosure that I managed to find, no two looked alike.

As I constructed other units, I was only able to find the right meters for the project one more time (Figure 2), but by this time, I had made friends with numerous club members. Larry Weide explained to me that



Figure 2



Figure 3

the mechanical movements on old meters could be made to do what ever you wanted them to do. He also assisted me in creating custom dial faces for the modified meters (figure 3.) Meters are all essentially DC Volt Meters. However, with shunts, they can become amp meters, with the right resistors, the range can be changed and with a bridge diode, you can make them measure A/C. Whodathunkit?

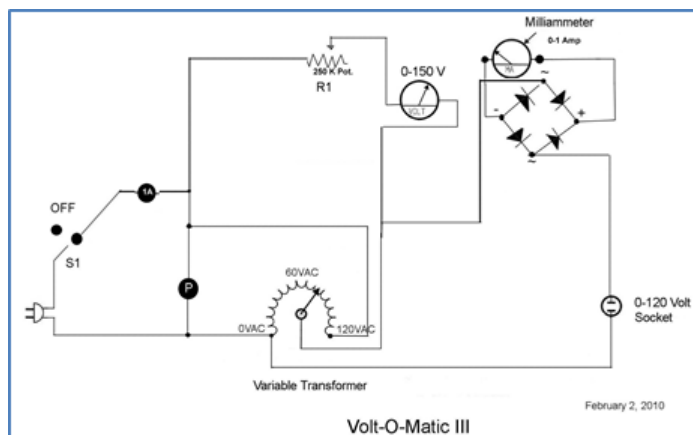


Figure 4

Now of course, you can purchase similar units “factory made.” But where is the fun in that? Besides, mine has more features.



Figure 5

Prior to my current project, I made a unit that incorporated a DC Volt Meter and a DC Amp Meter (Figure 6). I fed the “A” voltage from my battery replacer power supply into these meters and from them to the radio I was working on. Once again, I was able to verify that I was sending exactly the right voltage and current to the

(Continued on page 4)

filaments. After all, I want to protect my 01A's, as you know, these are expensive tubes.

Now, I have a current project where I am incorporating a power supply for battery radios into the *Volt-O-Matic*. I have an extra AES power supply that I am using for this. My friend Bill Dial gave me a surplus variac in a smaller size than I had previously used. This allowed me to use an enclosure that's been sitting in my shop for years. It is a nice box, but I thought it was too small for a *Volt-O-Matic* project because the previous variacs I had used were just a little too big to fit. The one I got from Bill is a perfect fit. The size of my project box is marginal, but it's going to work.

My whole concept changed regarding meters. I am now using digital meters, straight from – don't tell anyone – China. Want to buy some nice analog meters?

Before I started this project, I created a 3-D model of the enclosure and then made 3-D models of the major components and did a test fit (Figure 7.) It appeared it was going to work, but it would be tight. I used Google's Sketch Up program to do this. It's free for non-commercial users.

So lets take a look at what I did with the AES Power Supply (Figure 8.)

As you can see on the schematic, the three different voltage sections A, B & C are all fed directly from the single transformer (T1) into the three bridge diodes (D1, D2 & D3.) I simply relocated the transformer to the



Figure 6

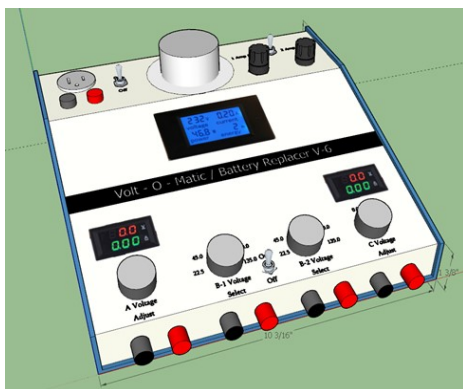


Figure 7

new enclosure, then carefully removed the B voltage section (fed from D1) and mounted the Zener diodes (D4 – D13) on the new selector switches. I jumper directly from what I am calling selector switch B1 over to selector switch B2. (Many radios require two different B voltages.) For the A & C voltage sections, I mounted 2 new terminal strips on the new chassis where I mounted bridge diodes D2 & D3. This gave me a solid mounting place and a place to land other wires. I did not use original potentiometers R7 & R9, they are flimsy units not suitable for chassis mounting and control. I had good replacements in my stock of old parts. I then spliced in the new digital meters to give me readouts on the A & C voltages. I did not use the DC meters on B because these outputs are switch selectable, A & C voltages are variable with the potentiometers and the A voltage (filament power) is important to have correct. Too high and you can easily burn out your valuable tubes, too low and the radio cannot operate. By the way, if you have considered the AES power supply and haven't built the kit, it's an easy project.

The wiring for the variable A/C supply part of the unit is very much like the schematic for the *Volt-O-Matic III* except for the simplification of the wiring because of use of the solid state meter.

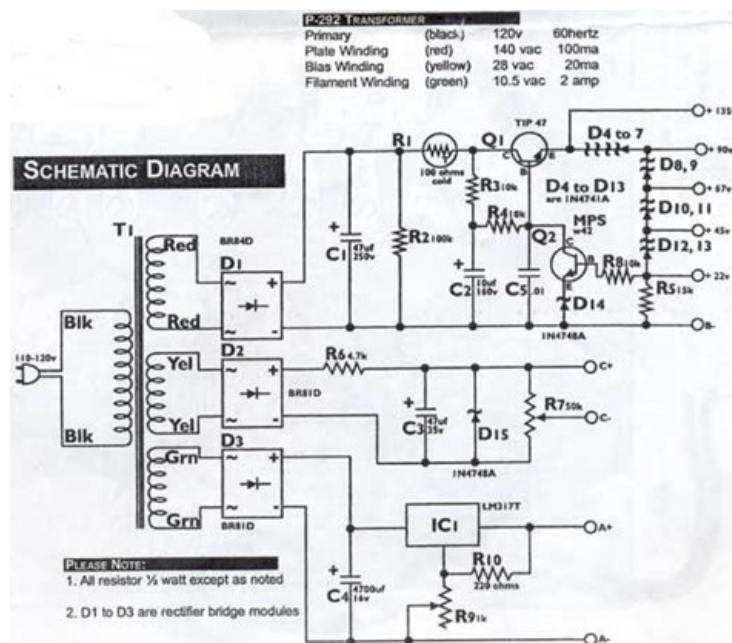
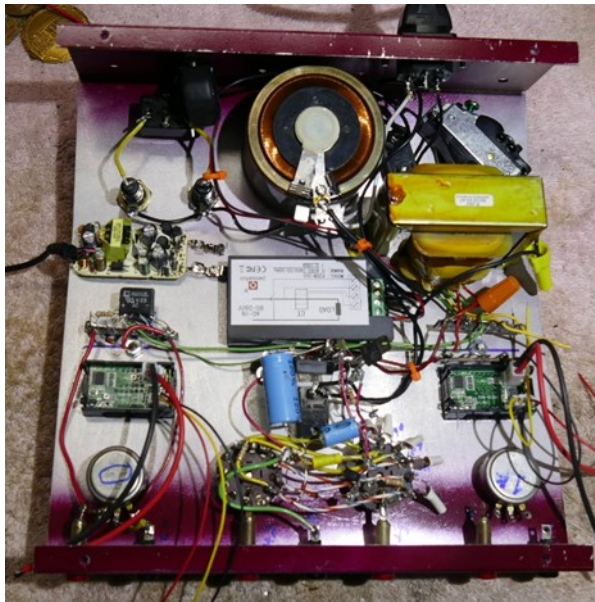


Figure 8

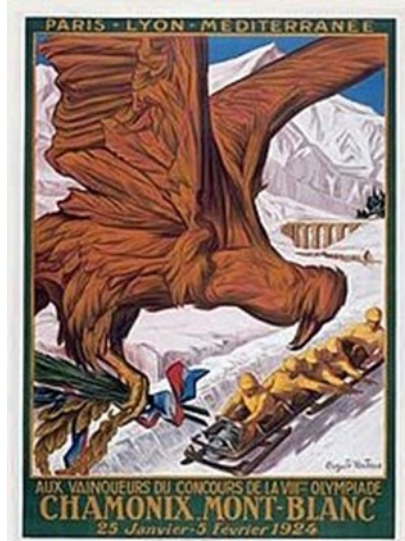
As I write this, my project is well along, but incomplete. I hope to have it complete for the next CRC club meeting in March. The photos below show the current status of the project. The A./C portion is complete and the meter is on. The installation of the AES power supply is mostly complete, but not yet working.



For now, let me fill some space with a few awful jokes.

- I met a girl at the circuit design club. I didn't have the capacity to resistor! (*say it out loud if needed*)
- An electrician was held up late at a job. His wife called him, and asked "Wire you insulate?" (*again, say it out loud*)

Finally, here are a few pictures Wayne sent for fun:



Apparently the bobsled riders were required to signal for left turns.

A plea from the editor: send us articles!

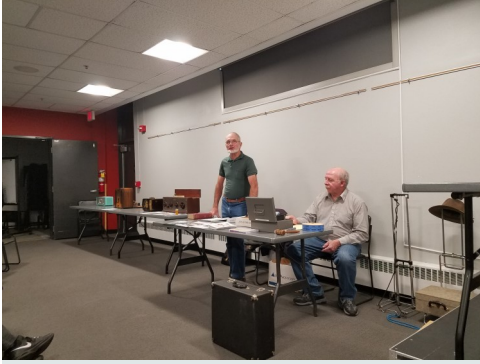
Hello! This is Brian, your friendly editor... I mean, uh, editor of The Flash!

Thanks to Rich for sending his article. Between that and our Vintage Voltage info, we were almost able to fill this entire issue! Almost. Instead, I have to fill up some space by writing this plea. I can dig up some old article for a rerun, but who wouldn't want some new content? Don't worry if it's too long (that makes things easy for me!) or too short (it can always fill in a small space like this). Don't be afraid if you're not the best writer in the world (I can help if you'd like) or if you *are* the best writer in the world (why would you be afraid of that?)



Learn Something New Every Day at LSNE.com

Photos from the CRC January 14th Meeting



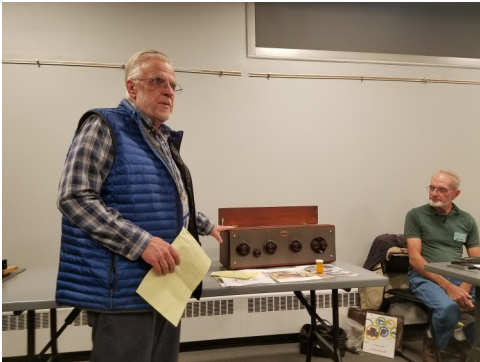
Meeting call to order by Mr. President



Raffle buffet



Barney setting up Hickok 752 tube tester



Larry's heavily-restored 1924 Atwater Kent 20 "big box"



Merril's restored Zenith with repaired handle



Hector's Crosley



Brian's Sylvania 1202 with internal light



Jewell model 533 Countertop Tube Tester (1930)





The Open Trunk

Member submitted advertisements



REPAIR SERVICE:

Radio repairs for club members. Reasonable rates. Good references.

Call David Boyle

303-681-3258

11/09

For Sale: by Dave Boyle

Most of the following instruments have been completely refurbished, repaired as needed, and calibrated. Most have manuals and test leads.

Prices are negotiable...please make offer.

- 1) Eico 5 inch oscilloscope. Model 425. Perfect for old radio repair work. Completely electronically rebuilt with **new CRT!** \$68.00
- 2) Eico "Professional" VTVM, 6 inch meter \$40.00

Radio Chassis For Sale:

- 1) RCA Radiola Model, 80, 82, 86 complete dual chassis and mounted speaker. VG condition, with tubes including 2ea VG 45 tubes. Make offer.
- 2) Philco Model 91. Complete *working chassis* with 12" good speaker. Working tuning meter too! Make offer.
- 3) Philco Model 37-610 complete chassis with tubes, good condition complete with bezel and glass. Make offer.

Call David Boyle,

303-681-3258

09/15

Wanted: 1920's Wooden Horn Speakers and a Crosley Musicone Speaker.

Also 1920's battery sets, especially Neutrodyne sets, Pre 1930 AC Radios and a Crosley Widget Console Radio

Michael O'Leary
moleary9@cox.net

602-354-7011

Wanted: To buy: 1948 Motorola 5A9B portable radio, Maroon color. Good condition only.

Dewey Reinhard
deweyfly30@gmail.com

719-596-5516

WANTED: Broadcast or recording mics, especially from 20's to 1950's.
Crosley Pup Info

NBC chimes, all eras.

Tom Keeton

303-797-8073

I have collected radios of all types for 30 years and now it is time to let them go to new homes.

Please call me for an appointment to see if any of them would fit in your collection.

I have tube radios including Tombstone, Cathedral, and Novelty etc.

I also have a large collection of transistor radios both shirt pocket and Novelty type.

Please call 303-238-1384
Thanks in advance,
Ron Smith

RADIOS4US@aol.com

WANTED to buy: 1980s Atari 520 or 1040 ST computer components (keyboard, monitor, etc.). I still need it for several specialized programs I wrote including a simulator for transistor and tube circuits. **Dave Laude** dlaude1@msn.com

FOR SALE:

- ◇ AK breadboard no. 4700 model 10C, excellent condition, operating, asking \$900 with tubes OBO.
- ◇ "Wide World Broadcast Receiver", manufacturer unknown, 5-tube TRF (2 -RF+gridleak detector+2-audios), good condition, nice cabinet, operating, asking \$75 with tubes OBO.

- ◇ Also have 1920's battery sets, telephones, WWII field telephones/telegraph, telegraph sets, toy electric motors,
- ◇ Toy stationary steam engines, Cretors popcorn wagon steam engine, clocks, misc. electrical/radio parts.
- ◇ **New:** Two Radiola IIIs and one Radiola IIIA. All restored and operational. No tubes. One III missing bottom of box. \$75/100 for Radiola III, \$100 for Radiola IIIA, OBO

Come see what I have!

Don Wick
Monument, CO
719-488-9469
dowick@comcast.net

For Sale:

Full size/console TV
1950s B&W RCA 6-T-65 "Eye Witness"

Farnsworth small console radio/record player K-262

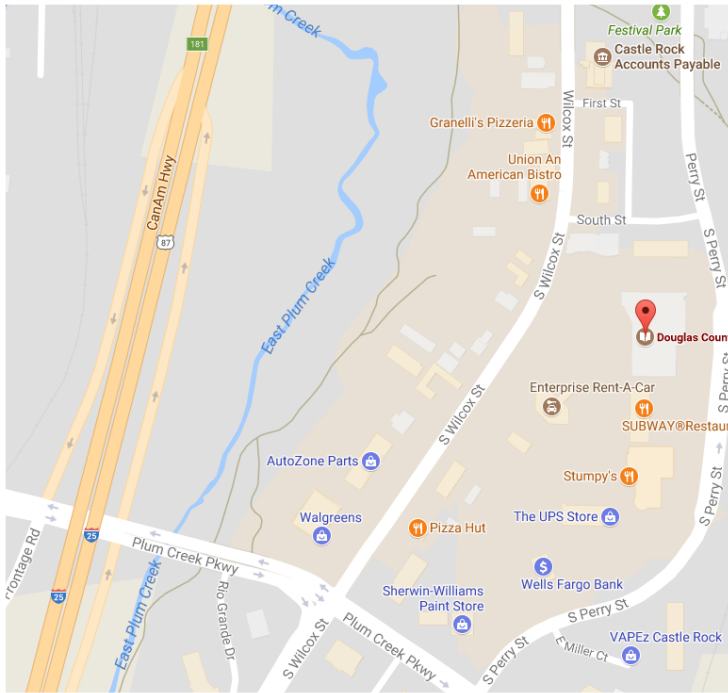
Located in Colorado Springs
Larry Steele
(719) 596-8883
larysteel@comcast.net

SUBMISSION OF ARTICLES & ADVERTISEMENTS

Classified Ads for The Open Trunk and articles of any radio/electronic or historical related subject to be published in the Flash are encouraged and welcomed. The article(s) should be submitted in Microsoft Word, RTF, or as text cut/paste into your email. Submit to Steve Touzalin by email at: stevetou@comcast.net or by postal mail to 417 So. Queen Circle, Lakewood CO 80226.

Formatting isn't necessary, but if you do, set the font to Times New Roman, size 10, left justified. If you have graphics (.jpg files) to be inserted, please name them and be specific about how you would like them placed. We will do our best based on space limitations.

The March 11th 1:00 meeting will be at the Miller Library in Castle Rock



Directions to Miller Library in Castle Rock

From I-25: Take the Plum Creek Parkway, exit #181.

Turn East onto Plum Creek Parkway.
Turn Left (North) onto S. Wilcox Street
and continue north 2 tenths of a mile.

The Philip S. Miller Library is on the east
side of the street at 100 S. Wilcox St.

The building is towards the back of the
parking lot, past the Dairy Queen.



**Colorado Radio Collectors
Antique Radio Club
417 S. Queen Cir.
Lakewood CO 80226**

FIRST CLASS MAIL