

The

# FLASH!

The Newsletter of  
The **Colorado Radio Collectors**  
Antique Radio Club

Volume 34, Issue 6

Next meeting November 12th

Nov./Dec. 2023

## The Annual CRC Auction and Barbeque Sunday, September 17, 2023

It was the 17<sup>th</sup> time since 2005 this yearly tradition has been held in the spacious outdoor grill and picnic pavilion graciously provided by the Tectonic Management Group located in Wheat Ridge. (In 2020 & 2021 the CRC Auction & Barbeque was canceled due to Covid 19.) Longtime CRC member Rich Kuberski, has always volunteered to be the event coordinator and is the official liaison with Tectonic. We thank you Rich!

It was a sunny day with beautiful, pleasantly cool weather. Rich opened the gate to the area at about 8 am. Volunteers moved the picnic tables out from under the pavilion and other members started to bring in their auction items. By about 10:30 the grill had been lit and the food serving table preparations had been made by Larry Snyder. Bill Busch was the cook with Scott Thomas the assistant cook. Tom Pouliot was the auctioneer, assisted by Merrill Campbell, Wayne Russert, Manny Dubois, Bill Harris, and Angel Adams that moved the Lots across the auction tables for presentation. Steve Touzalin and Paul Heller managed the computer desk and kept track of the auction data. Merrill and his wife collected and distributed the proceeds from the auction.



1 Lighting of the grill



2 Some very nice consoles



16 Scott Thomas before assisting



10 Refreshment and snack tables



6 Portable Zenith TV



7 Radio in homemade cabinet  
(Continued on page 3)



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Newsletter for The **Colorado Radio Collectors** club, founded in the Fall of 1988.

"Dedicated to the preservation and education of wireless, antique radio, television and associated equipment."

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

**CRC MEMBERSHIP:** Current annual dues are \$20 and membership in the CRC runs from July to June. New memberships will be prorated to the following June. Members are entitled to attend meetings, participate in our Spring show and our Fall auction, and receive our newsletter, **The Flash!**. Submit dues payable to: **Merril Campbell - 4723 Woodbury Dr. - Colorado Springs, CO 80915**

**UPCOMING EVENTS:** Nov. 12th CRC meeting. Location - The "New" Castle Rock Library in Castle Rock. January 14th, 2024 CRC meeting. More details in the next Flash.

### CRC contact information.

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<https://www.facebook.com/groups/1132691767366259>

#### eGroup posting address:

[colorado-radio-collectors@googlegroups.com](mailto:colorado-radio-collectors@googlegroups.com)

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<http://coloradoradiocollectors.com/CRC2/>

## MESSAGE FROM THE PRESIDENT

Hello everyone. I hope this issue of the Flash finds you well. We had a great auction this year. I was worried it would not be a success, but I sure was wrong about that. The most amazing thing is that a large number of radios in the auction were donations to the club, and some of those radios went for high bids. I can't thank the volunteers enough. It takes a lot of people doing different jobs to make the auction go smoothly, and this one sure did. I'll put a special mention here for Steve Touzalin, who spent many hours before and during the auction (and even after he got home). And of course to Merrill, who has a big job to do on auction day. But also thank you to all the others who selflessly pitched in before and on auction day - Bill, Scott, Wayne, Larry, Don, Rich, Tom and all those who I have not mentioned who just pitched in as needed (including those moving radios to and from the auction table). We all know who you are because we saw you in action, and we can all thank you for the success of the day.

Our meeting November 12 is at the New Castle Rock Library. I hope to see you there.

*Paul*



(Continued from page 1)



12 Table radios



13 Majestic Melody Cruiser  
sold for \$340



14 Horn speakers



15 Table radios & tube ad



23 Misc equip and Table radios



18 Table radios



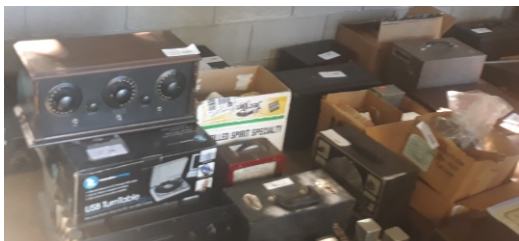
19 Table radios



20 Table radios



21 Misc equipment



22 Misc equipment



25 Wayne in the food line



26 Rich addressing the crowd



27 Auctioneer & helpers at the presentation tables



28 Steve & Paul at the computer desk

We are grateful for the many club and family members that volunteered their time and efforts, from the planning stage, through the execution stage, to the final clean-up. They are the ones that made this auction and barbeque the huge success that it was.

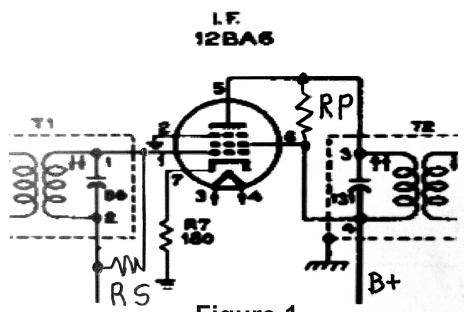
# No Need to Replace Many Defective IF and Some AF Transformers

by CRC Member Dave Laude

I know the title sounds like a crazy claim, but read on. There are alternative fixes that I have developed to avoid having to find a replacement and extract and replace an old radio transformer for a variety of faults. I'm not even going to suggest you remove the transformer and try to fix it (likely not fixable anyway). My fixes started one day when I found an open primary on an IF transformer and thought "how am I going to find a replacement transformer for this 1930s radio? It will never work again." Since necessity is the father of invention, I tried something in desperation that I thought would not have worked much, but did so amazingly well bringing in many stations with a short wire antenna in my basement. Inspired by that, I sought to find more cures for transformer faults. Ideally one would want to maintain the radio using original parts, but sometimes that option is not available. After making these fixes, I felt like the radios were performing like new and it has always worked for me thus far. However, since the fixes alter the original design, some slight degradation might occur. Let's have a closer look at my claims. Unless otherwise noted all resistors are ½ watt and capacitor voltage ratings are anything greater than the B+ voltage.

A- With an open IF transformer primary coil the plate of the tube driving it has no B+ to operate and so I thought to restore the B+ (DC) with a resistor across the primary (in the first figure see added resistor RP). Try 68K-220K for best results. How can this work as the coil is still open?

Capacitance conducts the AC radio signal. With overlapping coil windings there is capacitance between the two open sections of the primary that conducts the radio frequency AC signal (capacitors will pass AC in varying amounts proportional to frequency and capacitance, but not DC). This signal produces a current in the primary that creates a magnetic field sensed by the secondary just as for an undamaged transformer, but not quite as intended.



If the open is near one end of the coil then I suspect this fix won't work very well as that would decrease the capacitance between the two open coil segments substantially. Best would be a break near the center. It would be interesting to know what effect switching the transformer's primary leads would have if this fix is first found insufficient. It might do good to realign the transformer using the tweaking access opening on the transformer. Sometimes there is a break with the fine coil wires where they connect to the transformer's terminal. I have been able to very carefully reconnect these fragile wires.

Most opens should happen on the primary that carries much higher current and voltage than the secondary. For an open secondary I recommend trying a 100K resistor across the secondary and try reversing the secondary coil's leads for best results (in the first figure see added resistor RS). The resistor will conduct a small DC current to the grid of the connected tube allowing it to be biased properly. Otherwise with no DC path through the transformer's open secondary the tube will self-cutoff its current flow.

B- In another situation I had with an erroneous AGC (automatic gain control) voltage that degraded performance. I found a tiny leakage current from the IF transformer's high voltage



primary coil to the low voltage secondary coil on the final IF transformer just before the detector circuit, even though they were spaced apart and on a clear plastic form (1960s radio). The AGC impedance is very high at around 1 million ohms so very little leakage current will upset its voltage ( $V=I \times R$ ). For example, with 150 VDC on the primary and an extremely high 150 million ohm resistive leakage to the near zero VDC secondary a 1uA leakage current will occur and increase the AGC by 1VDC. With the normal AGC range just several volts negative a 1 VDC increase is starting to make a

difference in AGC performance. The fix is easy, works well, and requires just an R and C to isolate the high voltage plate circuit and let only the AC pass. Referring to the second figure, here is what you need to do: 1-Disconnect the plate from the coil (shown with an X), 2-Disconnect all leads to the other B+ side of the coil, but leave them otherwise connected together if more than one (one way to determine which coil lead is to turn on power and find the B+ lead with a voltmeter), 3-Connect coil lead in 2 to ground (be sure you did 2 completely to avoid smoke), 4-Add resistor RP (68K-220K) to restore B+ to the tube and finally, 5-Add capacitor CP (0.001-0.1 uF) to pass the AC signal to the transformer.

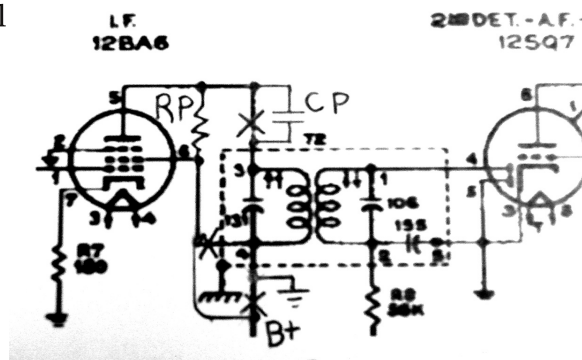


Figure 2.

C- For open AF interstage transformers commonly found on 1920s battery sets I've redesigned the

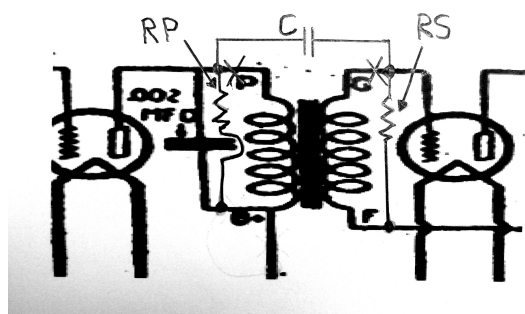


Figure 3.

circuit for R-C coupling like seen in later model radios. Note that this won't work for center tapped transformers that drive push-pull output tubes as is common in later model higher end radios. Like in situation A above, the circuit (see third figure) restores the driving plate voltage with resistor RP (68K-220K) and provides a DC path for the following stage tube grid with another resistor RS (220-330K) while eliminating the entire transformer by adding a coupling capacitor C (around 0.1uF) to pass the radio signal. The transformer must at least be disconnected from the radio

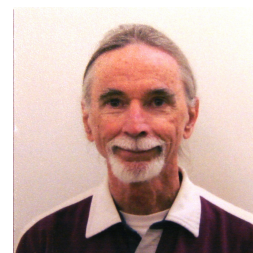
where shown with the two Xs.

D- For an antenna transformer primary or secondary open to the grid of oscillator/mixer tube I have simply connected a small capacitor (100pF-.01uF, any voltage rating) from the antenna to the open secondary where it connects to the tube's grid. This bypasses the transformer yet seems to still provide good performance. The third figure can be used as an example if the tube's plate on the left is considered the antenna and the B+ feed to the coil is considered ground instead. There is no need for RP, but RS (47K-100K) is needed if the transformer's secondary is open. Many radios do not have this transformer.

E- Since you made it this far in my article I'll give you with another "No Need To Replace" fix of mine. Perhaps you've run across radios where the power switch mounted on the back of the volume control is open, intermediate or won't make that "click" sound. Simply drill a small hole in the side of the cylindrical switch housing closer to the volume control body so as not to accidentally destroy the switch mechanism that's near the switch terminals and do not allow the bit to penetrate far in. Use a bit size to just allow the tube from your contact cleaner sprayer can to enter. Spray a shot

and then manually activate the switch back and forth several times. It's very helpful to put an ohm meter on the switch terminals to see the results as you go. Finally, I add one more squirt and work the switch some more. Be sure to unplug the radio from power.

F- Using the same process as in E, you can clean electrically noisy pots with contact cleaner spray by drilling into the side if there is no other easy access and it's too difficult to disassemble. You must know that the pot is NOT the wire wound type found on many early (1920s) radios as otherwise you will drill through the wire. It's the flat carbon disc type found on most all later radios that you can avoid damaging by drilling towards the back of the pot body.



I hope that now you can go back to some of your formerly unfixable radios and make them speak and sing again. If you have any question, remarks or results from using these ideas feel free to contact me by e-mail: [dlaudel@msn.com](mailto:dlaudel@msn.com).

## 2023 CRC Auction Results

Listed below are the lot descriptions and the final selling price for items in this years auction. The CRC is very grateful for all the donation items that the club received for this years auction and would again like to thank everyone who donated items.

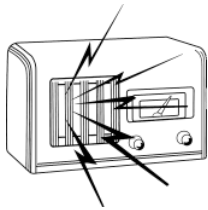
Description	Hammer Price	Description	Hammer Price
Tele-Tone Model 239 plastic radio (1952?)	\$5	Weller solder station	\$30
Donation 4	\$5	Several OLD meters	\$30
Donation 10	\$5	AK 48	\$30
Webcor Tape Recorder (1950's)	\$5	Philco 40-145 (ca 1940)	\$30
Homebrew Regen	\$5	Emersson 511 (ca 1940)	\$30
Bravn-Knect(sp?) Power Supply (DC & AC)	\$5	Assortment of Various Tubes	\$30
Donation 14	\$5	Detrola 4-D for parts/repair	\$35
Donation 16	\$5	General Electric H-500 Bakelite (1939)	\$35
Hammerlund Super Pro w/power supply. Works	\$10	Donation 12	\$35
Bendix 526b (ca 1946)	\$10	Zen. Transoceanic H500 (ca 1952)	\$35
Coral Speakers (1970's-80's)	\$10	Crosley Super-Tridyn (1924)	\$35
Revere T-100 Tape Recorder w/mic (1952)	\$10	Parts Cabinet - 3 pieces - caps, resistors, misc	\$35
Donation 11	\$10	Zenith R-723 Bakelite (1955)	\$35
Box of test items	\$10	Loose Coupler	\$35
Precision E200C Signal Generator	\$10	BOX - Wire, solder items, books, misc	\$35
Zenith R600 Transoceanic 1955	\$10	Tube PA Amp - unknown brand (1950's)	\$35
Zenith 4K435 Wood (1940)	\$10	Donation 2	\$40
Tube Advertising Display 1930's	\$10	Howard 906	\$40
BK Model #445 Tube Tester	\$10	Heath Kit GR-81 Regen AM/SW Radio 1960's	\$40
RCA 2-X-621 (ca 1952)	\$10	Donation 15	\$40

Description	Hammer Price	Description	Hammer Price
Braun TS1 (ca 1956)	\$10	Pioneer AM-FM Tuner (1970's)	\$40
GE Clock Radios (3) (1950's)	\$10	BC-603 Tank Radio (1940's)	\$40
Various Crystal Radio Coils - Early 1900's	\$10	Unknown Brand - Horn Speaker	\$45
Heathkit AR-13A (1965)	\$10	Stromberg Carlson #27 Console, Works (1931)	\$45
Heath Kit TC-2 Tube Tester	\$10	Philco 47-204 (1947)	\$45
Sears Model 250 AM-FM radio w/8 track stereo	\$10	Scott SLR-F Receiver 80 khz to 24 mhz. Works	\$50
Lw Converter	\$10	Zen. Transoceanic Y600 ????	\$50
Heath Kit RC-1 Radiation Meter 1960's	\$15	Box of knobs	\$55
Donation 6	\$15	RCA RC1079 "Bullhorn" (ca 1949)	\$60
Heathkit IG-57A Sweep Generator (1970)	\$15	TruTone Horn Speaker (1925)	\$60
RS-1 R Sub. Box, CDA C sub Box - Heath Kit, Corn	\$15	Pierce Wire Recorder (1930's)	\$60
Donation 13	\$15	Zenith 6-D-614N (1942)	\$60
Philco 46-350 (2 radios)	\$15	Morris Universal Coil Winder	\$60
Donation 3	\$20	Crosley Model 167 Tombstone, works 1933	\$65
Donation 7	\$20	Philco 38-116 w/extra chassis	\$65
Pearson 5 (1925)	\$20	Victor R15	\$65
GE FE-112 Table (1937)	\$20	Zenith G 516 Plaskon "Owl" (1950)	\$70
Techtronics Oscilloscope (2) (1950's)	\$20	Hallicrafters S-118 (1960's)	\$70
Hallicrafters S40-B working	\$20	(5) 45 tubes and (3) 01A's	\$70
Stromberg Carlson 1101H (ca 1947)	\$20	McMurdo Silver Model #904 Capacitor Tester	\$70
Aero Coil - SW Removable Coil Tower in Orig box	\$20	GE - Small Bakelite, brass grill 1939	\$75
Homebrew 6 Band Regen, picks up signals	\$20	I-177-B Tube Tester, works 1951	\$75
DeForest - Set of 3 Honeycomb coils on Mtg Plate	\$20	Motorola Model 5A7A metal radio (1948)	\$75
Fredd-Eisemann FE-15 (1925)	\$20	Hallicrafters R-46 Speaker - works ((1951-52)	\$80
OS-8 Oscilloscope (1950's)	\$20	1920's portable superhet	\$90
Nonlinear Sys. M5-15 Miniscope (1980)	\$20	Zenith 6-S-223 1938	\$90
1180 C Sub Box, 710 Digital Freq. Counter - Eico,	\$20	Radiola VIII (1924)	\$100
Atwater Kent 90 Cabinet	\$20	Belmont 4B115 (Battery) 1948	\$100
Donation 1	\$25	Zenith 6-S-528 Ingraham Cabinet (1941)	\$120
Donation 5	\$25	Westing House Aerial SR (1920's)	\$125
Donation 8	\$25	(8) strong 01A tubes	\$130
Realistic Radios (4) 1 NIB	\$25	Goodyear 1015040 1939?	\$140
All American Battery Eliminator #18618	\$25	Radiola 4 - working w/tubes	\$150
Murphy A72 (220 volts)(ca 1939)	\$25	Motorola Dragon 5J2U (ca 1950)	\$170
Freed- Eisemann NR-6 (1924)	\$25	Philco 70 Baby Grand (1931)	\$180
Zenith Trans-Oceanic - does not power up (1958)	\$25	Philco PT-61 (1939)	\$200
B&K Model 960 and Calrod Model T-80 testers	\$25	Hallicrafters Model 23	\$210
Inn. Tech. USB turntable IT-UT-201	\$30	2 Boxes of Tubes - Numbered 777A & 777B	\$290
Donation 9	\$30	Majestic Melody Cruiser (ca 1940)	\$340
Western Royal - no Model #	\$30		

**Total Sales: \$5,510.00    CRC Commission: \$357.50    Donations: \$1,935.00**

**WARNING !!** : There is a new on-line scam out there. A club member we know ordered some books online from a website for his wife that she really wanted. His payment was accepted and the package arrived in just a couple of days. His wife was pretty upset as the seller did not send the books they had ordered, but instead sent an old wooden tabletop radio. Fortunately it was a model that he didn't already have!





# The Latest CRC Club News

September 10, 2023



The September 10, 2023, meeting was held once again at the Highlands Ranch Library on S Ridgeline Blvd. For those that thought this venue looked familiar, a previous meeting at this location was more than 6 years ago on May 21, 2017. That meeting was presided over by club president Tom Zaczak, just prior to his moving to Illinois. (Ref. The Flash Vol 28-3).

This meeting was attended by 27 members, or approximately 40% of the current 69 paid up members. The gallery of those in attendance included prestigious founding members and past presidents of the club, namely, Larry Weide, Dave Boyle, and Barney Wooters. It was good to see



them again. Barney had been absent from meetings for the last few years. They were all given a very warm welcome. During the course of the meeting Barney and Dave shared their recollections of the club's history in its early start-up years.

Rich Kuberski & Steve Touzalin discussed details for the BBQ/Auction on September 17. It was decided that the auctioneer would have the final determination of the winning bidder should a dispute arise.



New members and new faces in the audience included James Hall and Milton Omoto. This was the first meeting Milton Omoto attended even though he has been a club member for some time.

James Hall



Milton Omoto



There was an assortment of nice items found on the raffle tables.



## "Show and Tell" Items

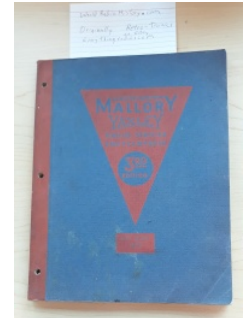


Merril Campbell presented his 1939 Philco PT 61 Art-Deco set.

And a very unusual 1938 Zenith 6-2-326 "Child Console" where the chassis is mounted vertically in the set.



Steve Touzalin described his restoration of an Emerson 301 D-B radio and how he got information from the Mallory Radio Service Encyclopedia he obtained online.



David Boyle brought three items.

1. A Philco Aerial Kit from 1937, in the original box, complete with 2 glass insulators, a lightning arrester, the thru-the-wall tube, the aerial wire, & grounding wire and instructions.

2. Some "Tiny Tone" radio sets made by Western Manufacturing in Kearney, Nebraska. He also displayed information from the 1956 July issue of Popular Electronics and the Sept./Oct. 1997 Flash on the Western Manufacturing Company and the Tiny Tone sets.

3. An RCA B-411 from 1951. Not this same radio, but this model was one of the first radio sets he owned growing up.



David Boyle announced that he hopes to do another Tesla Coil demonstration at his home in January. If you have not seen this truly electrifying, high-voltage electrical discharge display, it is highly recommended!

He also announced that the November CRC meeting will be at the NEW Castle Rock Library.



**POCKET** OR **PURSE** **RADIO!**  
SIZE

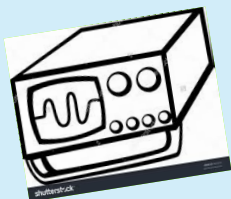
**SMALL AS A PACKAGE OF CIGARETTES** Wt. only 4 oz.—**BEAUTIFUL** case. **NO TUBES—BATTERIES OR ELECTRIC "PLUG-INS" NEEDED!** Fully molded silver black power crystal diode. **ONE YEAR SERVICE GUARANTEE.**

**GUARANTEED TO WORK** on local stations if used as directed. **Listen at home, in cabins, in bed, on farms, hotels, offices—most anywhere.** L. S. of Texas says "It's Wonderful".

**SEND ONLY \$1.00** (bill, money order, check) and pay postman \$2.99 plus C.O.D. fees on arrival or send **ONLY \$3.99** for postpaid delivery. **Complete—Ready to play!** Marvelous gift for children or grownups; **Bargain priced!** Order your **Pakette Radio** now! (Foreign \$5.00 U. S. Cash).

**PAKETTE RADIO COMPANY, INC., Dept PPS-6, Kearney, Nebr.**

JUNE 1948 275



# Classified Ads



Ads are free for CRC members. To place an ad send your ad description along with personal contact information to Steve at [stevetou@comcast.net](mailto:stevetou@comcast.net) or Larry at [Lsnyder200@cs.com](mailto:Lsnyder200@cs.com).

## FOR SALE:

Starting to gradually sell off restored radios from my extensive collection to club members and friends. Prices are very reasonable and will gladly negotiate. Range from the early 1920's to mid 1950's.

Mostly wood radios from the 1930's...my favorite styles! Castle Rock Area  
David Boyle 303-681-3258  
email: [djboylesr@msn.com](mailto:djboylesr@msn.com)

**REPAIR SERVICE:** Radio repairs for club members. Reasonable rates. Good references. Please call Mike Cook 303-885-8034 [mldcook@hotmail.com](mailto:mldcook@hotmail.com)

**WANTED:** I am looking for a handle and an antenna for a 1950s Zenith TO. Please contact Paul Klein:  
[pbklein@aol.com](mailto:pbklein@aol.com) Thank you!!

## FOR SALE:

Tube Radios - Tombstone, Cathedral and Novelty Transistor Radios. I have collected radios of all types for 35 plus years and now it is time to let them go to new home/s. I have over 250 tube type and over 5,000 transistor (both novelty and shirt pocket type)  
Please call 303-238-1384  
[radios4us@aol.com](mailto:radios4us@aol.com)  
Thank You, Ron Smith

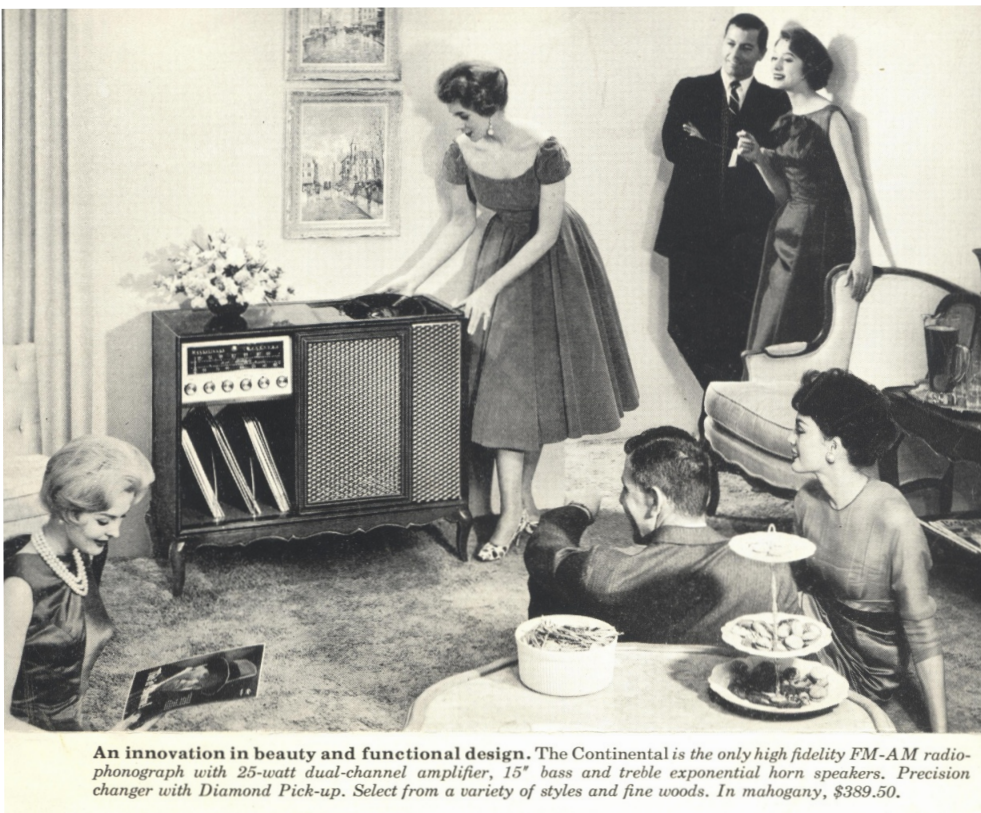
**WANTED** - Austrian Minerva 388 wood table radio, vintage about 1937. Bob Krassa ACØJL. [bob@krassa.com](mailto:bob@krassa.com) or 303-475-2824 Thanks!

**FOR SALE:** New old stock & quality used vacuum tubes. Please refer to my business card pictured below. Thank you! Sean Duffy (573) 999-6187  
[acmetubesupply@gmail.com](mailto:acmetubesupply@gmail.com)



## NEEDED:

Articles and advertisements for future Flash newsletters. Please contact **Steve** or **Larry** with any material you may have.



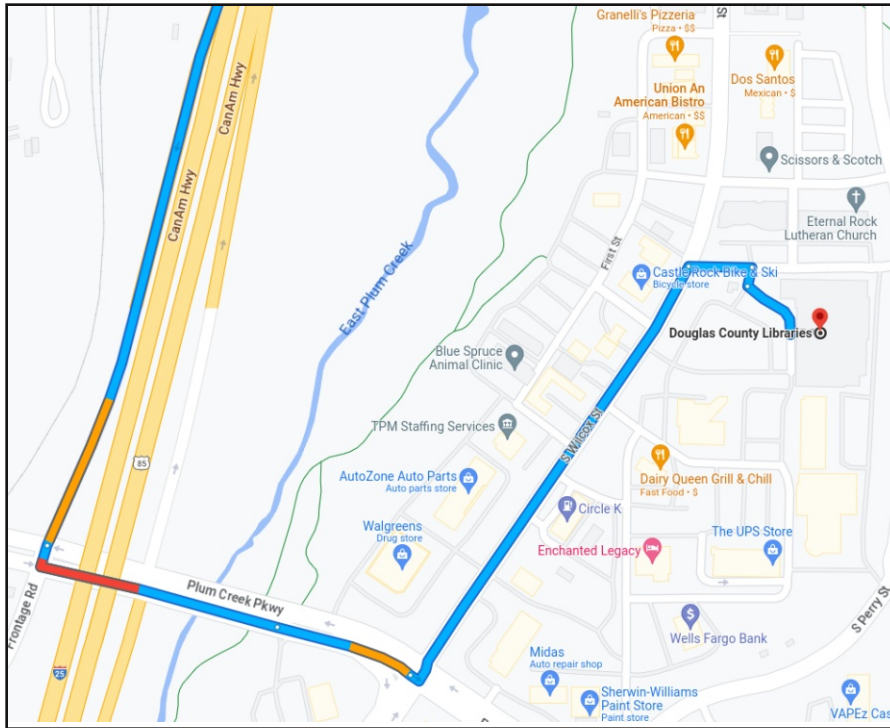
An innovation in beauty and functional design. The Continental is the only high fidelity FM-AM radio-phonograph with 25-watt dual-channel amplifier, 15" bass and treble exponential horn speakers. Precision changer with Diamond Pick-up. Select from a variety of styles and fine woods. In mahogany, \$389.50.

Submitted by Bill Kohl

**SUBMISSION OF ARTICLES & AND ADVERTISEMENTS:** Classified Ads 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, OpenOffice, RTF, or as plain text, to Steve Touzalin by email at: [stevetou@comcast.net](mailto:stevetou@comcast.net) or Larry Snyder at [Lsnyder200@cs.com](mailto:Lsnyder200@cs.com) or by postal mail to 417 So. Queen Circle, Lakewood CO 80226. Formatting isn't necessary as it won't transfer into our software, 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.



# CRC Meeting Sunday, November 12th 1 PM at the "NEW" Castle Rock Library in Castle Rock.



## Directions to The "New" Castle Rock 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 Castle Rock Library is on the east side of the street at 100 S. Wilcox St. The parking may be limited or some distance away from the entrance.

## Food for Thought...

The article below is an excerpt from the April 12, 1928 **Calhan News**, El Paso County, Colorado.

### What Becomes of Radio Waves? Go on Forever?

**New York** - Wireless messages sent out from the beam transmitting station at Dorchester are picked up in New York one-sixteenth of a second later. What becomes of these messages?

An official of the Marconi Wireless Telegraph company, questioned on this point, said:

"These messages are never lost. So far as we can say at the moment they may go on forever, of course getting fainter and fainter as the time goes by. We have actually trapped a message which we have sent out on its third circuit around the world."

"If wireless continues to develop at its present rate it is not too much to say that 100 years hence people will be able to pick up messages we are transmitting today. Imagine what that means. Real voices from the grave of many famous men who in the ordinary course of nature cannot expect to be alive 100 or even 50 years from now."

"Their voices are still wandering in the ether waiting to be picked up by a sufficiently sensitive instrument."