



Vintage Marantz 2245 receiver



Part of the Crosley story



1928 Echophone model C6 radio

○ # 03

○ Vol-23

○ 2018



NEW MEXICO

# RADIO COLLECTORS CLUB

## Next NMRCC Meeting March 11th

### Early FM Stereo receivers, amplifiers, and other vintage audio equipment

*The Vintage Marantz 2245 stereo receiver is another early 1970s model that owners rave about. It has an AM and FM stereo tuner and deep bass coupled with clear, crisp highs. Some vintage models may have problems with speaker jacks becoming worn and brittle; however, these are easily replaced. This model also has great sound quality. It has a strong, sensitive tuner so receiving music channels is not a problem for this stereo receiver*

## A Few Thoughts on Shortwave Radio by Rick Harris

Have you ever taken a good look at those great table and/or console radios from the 1930s? Those far-away places shown - Moscow, London, Paris, Berlin, Tokyo, Rome, Havana and many more exotic locations! Photo #1 of this Fairbanks-Morse Model 6A (Circa 1938) dial from Mark Toppo's superb collection is typical of those exotic locations displayed on radios of the period.

This interest led me to do a little research on the history of shortwave broadcasting. I certainly found many surprises which highlighted my lack of knowledge on the subject. Credit must go to Wikipedia for the great information in their data base on shortwave.

While home built shortwave receivers had been used by amateur radio operators and radio experimenters prior to World War I, the first time shortwave radio reception was available to the general public was through the use of shortwave frequency converters sold as accessories to broadcast-band radio sets during the mid-1920s. Such converters were generally found unsatisfactory in performance, and so dedicated shortwave receiving sets soon appeared on the market. National Radio Company introduced the SW-2 "Thrill Box" shortwave regenerative receiver in 1927, and later offered improved

models, such as the highly regarded SW-3. Other notable early shortwave receivers included the Pilot Radio's "Super Wasp" line of regenerative receivers.

E.H. Scott Radio Laboratories offered its superheterodyne "World's Record" shortwave receiver kit in the late 1920s. In 1931 Hammarlund introduced the "Comet Pro," the first fully assembled commercial shortwave superheterodyne receiver. Hallicrafters introduced the "Super Skywriter" in 1935, a superheterodyne shortwave receiver available in several different models that covered the broadcast band up to 30 MHz. Superheterodyne receiver circuits soon essentially replaced all previous receiver designs, and radio manufacturers such as RCA, Zenith, Philco, Emerson and Stromberg-Carlson offered consumers table or console model "all wave" sets that could receive both medium wave and shortwave bands. By 1936 it was estimated that 100 percent of console models and 65 percent of table models were able to receive shortwave broadcasts.

Shortwave communications began to

*(Continued on page Four)*



# The NMRCC February 11, 2018 Meeting Minutes by Chuck Burch

This month's pre-meeting auction was mainly tubes, electronic parts and books. Included were some boxes with very good tube numbers which sold at fairly good prices.

The meeting was called to order at approximately 1:30 by President David Wilson. Attendance was down to around a dozen as several regular attendees were out of town or sick at home. Visiting this month was Sandia retiree Pete Havey who has a few radios and views himself as an electronic tinkerer. The meeting started out with our 2-minute round-robin. Only a few members had current projects to report. Richard Majestic mentioned that John Anthes bought him a Scott Philharmonic chassis at the Houston Radio Club auction which he plans to combine with a Scott All-Wave 23 Power supply to get working. He has repaired 6 Philharmonics for customers and decided he wanted one for himself. He prefers using an amplifier with 2A3 output tubes and has found the best 2A3's currently being made are Chinese Shuguang brand available on eBay for \$40.00 each. Mark Toppo finished up restoring a few cabinets for club members. John Estock

Thanks go to Rick Harris and Chuck Burch for this month's article submissions. Keep up the good work Members and friends. (RM)

has been working on some power supplies that he got at the recent Hamfest and were previously owned by long-time NMRCC member George Cortleyou. Les Davidson also recently got some of George's stuff that he had been restoring: a 1960s classic Sonar model G CB radio, a combination tube and transistor CB radio, and a Emicorder wind-up Japanese tape recorder. Chuck Burch tuned up three radio he had laying around that John Anthes took along with a few of his own 1920s battery radios to the Houston Radio Club Meeting happening the same weekend as our NMRCC meeting. David Wilson has been installing surround-sound speakers in the walls of his house.

The month's theme was pre-1930 radios. Don Menning brought his "entire Atwater-Kent collection" which consisted of an AK30 and an AK35. Both were made in 1926 and have 6 tubes with one-dial tuning using ganged tuning capacitors. It was mentioned that Mr. Kent had a mansion in Philadelphia that is now a museum. We also discussed that in 1936 the demand was down for radios and when plant workers wanted to unionize, the Atwater Kent company simply shut down their plant and

closed down the business. Chuck Burch discussed Powell Crosley and his various business ventures. Crosley Radio started when Powell's son wanted a radio that Powell felt were overpriced, so he built a radio for his son and started making low-priced radios for sale. Chuck discussed the Crosley one-tube Pup and its internal parts. Chuck brought in his 1924 models 51 and 52 Crossley's which have the same regen design as the Crosley Pup but have additional audio amplifier stages. Mark Toppo brought in a very nice 1928 Echophone model C6 TRF radio. It was one of the first Los Angeles "midget radios" and had 6 tubes with all the electronics mounted onto the back of the radio. Chuck Burch's Crosley presentation was chosen for this month's Best of Show.

Old Business. Don Menning reported that Quelab has no problem with NMRCC having a swap meet in their parking lot. We still need to find a volunteer to chair the swap meet if we are to have one. It was discussed possibly getting several table spots at the upcoming Duke City Hamfest and having a swap-meet-type event there. The Hamfest is scheduled for September 21 to 23 at Isleta Resort/Casino. Further discussion is planned for next month. David Wilson and Richard Majestic are working with New Mexico State University on allowing NMRCC to install a plaque honoring radio pioneer Ralph Goddard and the early KOB college radio station. David Wilson reported talking to the Nuclear Museum about having our spring picnic there. The cost will be \$200 which includes having 2 tour guides and allowing us to bring in food. The plan is to have the field trip/picnic on May 20th from noon to 3 PM at the museum. We will decide on the food catering at a later club meeting.

New Business: A request has been made that the Best-of-Show award include a certificate in addition to the tube trophy like we have done in the past. We need to see if we can find a file of the certificate that we can print them. Chuck Burch made the motion to increase our normal 5% commission to 10% on all auction item selling for 5 dollars and less. It was seconded by Richard Majestic and approved by the club. Club Treasurer Richard Majestic reported that we currently have \$6,154.20 in our checking account.

The meeting was adjourned at 2:55.

## NMRCC 2018 MEETING DATES

**January 14th** Old loudspeakers and microphones

**February 11th** Pre-1930 radios

**March 11th** Early FM Stereo receivers, amplifiers, and other vintage audio equipment

**April 15th** Homebuilt crystal, tube, and transistor sets

**May 20th** Spring Picnic @ Steeplechase Park, Coney Island NY

**June 10th** Atwater Kent tube radio sets

**July 8th** Store-branded radio sets (Airline, Trutone, Airchief, Silvertone and etc

**August 12th** Wild Card Sunday

**September 9th** One-tube radios

**October 14th** Fall Ribeye Steak Picnic (Majestic's)

**November 11th** Old test equipment, tube testers, RF signal generators, oscilloscopes, bridges, meters and etc

**December 9th** Holiday Party



## NMRCC Officers for 2018

- *David Wilson: President*
- *Mark Toppo: Vice President*
- *Richard Majestic: Treasurer*
- *Secretary: Chuck Burch*
- *Membership: John Anthes*
- *Ron Monty Director*
- *Ray Trujillo Director*
- *Ed Brady Director*
- *Richard Majestic: Newsletter Editor (President pro-tem)*

# Pre-1930 radios



Don Menning brought his "entire Atwater-Kent collection" which consisted of an AK30 and an AK35.



Chuck Burch brought in his 1924 models 51 and 52 Crossley's which have the same regen design as the Crosley Pup but have additional audio amplifier stages.



Mark Toppo brought in a very nice 1928 Echophone model C6 TRF radio. It was one of the first Los Angeles "midget radios" and had 6 tubes with all the electronics mounted onto the back of the radio.

**The Presidents Column:** In the membership survey taken last fall we asked our members if they would be interested in having an annual club swap meet that we would promote and open to the general public. In the survey response our membership was favorable to this idea. Don Menning got the approval from the Quelab where we could hold the event in the lab parking lot if we wanted to. At our February meeting we also discussed possibly of holding our swap meet at the Duke City Hamfest. The ham fest is scheduled for September 21 to 23 at Isleta Resort/Casino. Holding our club swap meet at the Duke City Hamfest would allow our club to participate

in the hamfest event and at the same time integrate our swap meet into their event. I think this would be the best way for us to participate and promote our club at this event, hopefully attracting some new membership. It would be a great market place to sell some of your items as well. This event would be much simplified if you hold it at the Duke City Hamfest and I don't think it will be much work other than securing tables and signage and getting members to participate in the event. Let me know at our next meeting if you would like to chair this event for our club. ~David Wilson

# A Few Thoughts on Shortwave Radio by Rick Harris

*(Continued from page One)*

grow rapidly in the 1920s. By 1928, more than half of long distance communications had moved from transoceanic cables and long wave wireless services to shortwave and the overall volume of transoceanic shortwave communications had vastly increased.

Countries began to develop shortwave transmitters for:

1. Domestic broadcasting: to widely dispersed populations with few longwave or medium wave facilities.
2. Government-sponsored propaganda, international news, or cultural stations for foreign audiences.

In the 1930s, I'm sure most Americans got their foreign news through the print mediums or over medium wave AM stations. These new commercial radios allowed the adventurous to hook up some type of antenna and personally hear stations around the world. This had to be an exciting time for radio. In 1931, I found that listeners were already logging such shortwave stations as:

PMB, Java; LSG, Buenos Aires; GBW, England; DHC, Germany; K1XR, Manila;

VRY, British Guiana, HS2PJ, Siam; HRB, Honduras; 3R0, Rome and FER, Saigon.

Two of the biggest users of Shortwave were the British Broadcasting Corporation (established in 1927) and Radio Moscow. The BBC started their Empire Service (precursor of the World Service) on shortwave in 1932. They began services in foreign languages in 1938. Radio Moscow began foreign language broadcasts in 1929 (medium wave?) and by 1939 was broadcasting in six languages on shortwave.

Before World War II, all American shortwave stations were in private hands. Known privately controlled shortwave networks included the National Broadcasting System's International, or White Network, which broadcast in six languages; the Columbia Broadcasting System's Latin American international network consisting of 64 stations located in 18 different countries, and the Crosley Company of Cincinnati OH. Experimental governmental programming began in the 1930s, but there were then fewer than twelve transmitters in operation. In 1940 an agency of the State Department began shortwave operations to Latin America to counter Nazi propaganda beamed to the region.

After Pearl Harbor, the Foreign Information Service (forerunner of the Voice of America) began shortwave broadcasts. The term "Voice of America" was coined in 1942. By the end of the war, the VOA had 39 transmitters and provided service in 40 languages.

During World War II, listeners could tune in two famous Axis broadcasters - Tokyo Rose from Japan and Lord "Haw Haw" from Berlin. For the trivia buffs: Tokyo Rose was Iva Ikuko Toguri. Born in Los Angeles, she was charged with treason and sentenced to 10 years in prison. Lord "Haw Haw" was William Joyce. Born in America, he took German citizenship in 1940. Charged with high treason by the British, he was convicted and hanged in 1946.

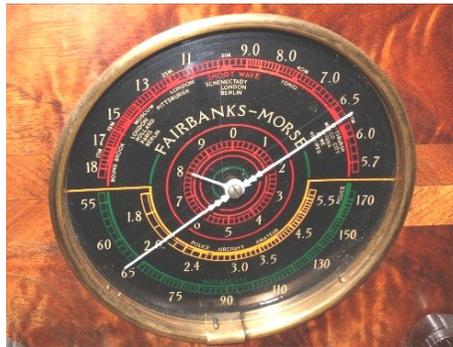
The Cold War saw the further refinement of propaganda programming by such stations as the BBC, VOA, Radio Moscow, Radio Free Europe, Radio Americas, Radio Liberty, Radio Berlin International, Radio Peking, Radio Pyongyang and Radio Hanoi. Additional language broadcasts were added to enhance one's news, commentaries, and points of view. In the 1950s and 60s many countries added shortwave transmitting capabilities to their radio services and a number of religious-themed stations began to appear.

With the breakup of the Soviet Union, the development of satellite television, and the explosion of the internet, shortwave broadcasts have greatly diminished. Another great chapter of radio history has been written.

Writing this article, I was reminded that my interest in shortwave radio was kindled by my best friend in small town Arkansas in the 1950s. His grandfather had a Philco table model and my friend began to listen to shortwave and he got me interested too. That led me into years of Shortwave Listening (SWLing) and eventually into amateur radio.

The reference back then was the World Radio and Television Guide - a complete listing of stations, callsigns, frequencies, etc. A number of clubs dedicated to the hobby also existed. I belonged to two - the Newark News Radio Club and the International Short Wave League (still a member today). Their monthly publications listed stations heard, equipment notes, broadcasting information, and varied other information concerning the hobby. My early receivers were the Hallicrafters S-38E and the Hammarlund HQ-180.

Here's a look at some of the interesting QSLs of my shortwave listening:



1. Fairbanks-Morse radio dial
2. Radio Brazzaville
3. Overseas Broadcasting Station, Bangkok, Thailand
4. Radio Monte-Carlo
5. The Voice of Indonesia
6. Radio Americas (CIA funded)
7. Radio Tahiti
8. VOA transmitter, Tangier, Morocco
9. Radio Pyongyang, North Korea
10. Radio Baghdad

~ Rick Harris

**BRAZZAVILLE**  
**RADIODIFFUSION**  
**TÉLÉVISION**  
**FRANÇAISE**

RÉPUBLIQUE DU CONGO B. P. 108

**THE OVERSEAS BROADCASTING STATION**  
 BANGKOK, THAILAND.

**HSK 9**  
 11.91  
 Power output: 50 Kw. Frequency: 1538 mc/s (25 m.)  
 Schedule 1025-1045 G.M.T.  
 RICHARD HARRIS.

With thanks we beg to verify correct  
 your report on 1st October 1960.

*Visit Amphawan?*  
 Chief, Overseas Broadcasting Division, Public Relations Dept.



**RADIO BAGHDAD**  
 The Voice of The  
 Iraq Republic  
**ر.ب.ا.د**

**IRAQ - IRAK**

RADIO BAGHDAD Transmits 10 Hours Daily in 11 Languages:  
 Arabic, English, French, German, Hebrew,  
 Hindi, Persian, Russian, Turkish, Ukrainian,  
 and Urdu.

Long. 7° 26'  
 Lat. 43° 44'

**RADIO MONTE-CARLO**  
 Principauté de MONACO

QRH : 1466 kc 205 m 400 kw CALL 3 AM 2  
 » 6035 kc 49 m 71 30 kw » 3 AM 3  
 » 7140 kc 42 m 02 30 kw » 3 AM 4

*the Voice of Indonesia*

Stations YDF 8 - Freq. 9585 Kc/s  
 YDF 3 - " 11795 "  
 YDD - " 11715 "

**RADIO AMERICAS**  
 P.O. Box 352, Miami 1, Florida.

To Richard Harris

**voa**  
 THE VOICE OF AMERICA

is pleased to confirm  
 your reception of our program  
 transmitted by  
Tangier  
 on 25880 kcs.  
 on 11-8-59  
*W. J. Dulin*  
 (signature)

# The Many Businesses of Powell Crosley Jr by Chuck Burch

Most radio collectors will likely have a few Crosley radios in their collection, but Powell Crosley Jr, the man behind the radio, influenced many other industries. He was born in 1886 and had a passion for automobiles at a very young age. At the age of 13, he and his brother Lewis built a car that his lawyer father bet Powell would not travel a block, he lost the bet. Over their lifetimes, Powell and Lewis had many commercial successes along with some failures. Powell was primarily the creative genius producing ideas and Lewis primarily the business genius in the background converting the ideas into commercial successes.

Powell formed a company in 1907 to build an inexpensive automobile but it failed due to inadequate funding. He then worked for a variety of automobile companies until 1916 when he formed an automobile accessory company. The accessory company was highly successful with two of the best sellers being a tire reliner Powell invented that was sold by Sears and a radiator cap device that held up to five US flags which allowed drivers to show their patriotism during WWI.

While Powell's true obsession was with cars, it was radio that actually made his biggest fortune. In 1920, his son asked him for a radio which then cost around \$100 that Powell felt was over priced. He bought a booklet titled "The ABC of Radio" from which he and his son constructed their own radio. Powell then started manufacturing radio components and later radios. The Crosley brothers used some of Henry Ford's mass production techniques to produce millions of household radio at lower costs than competitors. By 1924, the Crosley Radio Corporation was one of the world's largest radio manufacturers.

In 1925, Crosley introduced a small, 1-tube regenerative radio called the Crosley Pup with the price of \$9.75. The Crosley Pup was an instant hit with a reported 14,000 sold in the first five weeks. A cute pudgy little dog named Bonzo listening to a Crosley Pup with a headset became an advertising success promoting the sales of the Crosley radios.



Crosley felt better broadcasting would result in more radio listeners and more powerful stations would allow radios to be less expensive so more people could afford to buy them. In 1922, Crosley formed the Crosley Broadcasting Corporation which was licensed to operate at 50 watts under the call letters WLW. In 1926, the station was operating at 50,000 watts and in 1934 it was 500,000 watts making it the most powerful radio transmitter in the world. WLW featured many key entertainers like Red Skelton, Rosemary Clooney, Fats Waller, Doris Day and the Mills brothers. Crosley also produced some of the earliest soap operas with the sponsorship of Procter & Gamble.

In 1939, the FCC forced WLW to reduce its power to 50,000 watts because it interfered with other stations. Crosley then became interested in international broadcasting and created a shortwave station WLWO with a 50 kilowatt transmitter broadcasting news and music to Europe and Latin America. At that time, there were only 2 profitable US shortwave stations: Crosley's 50 kilowatt WLWO and GE's 10 kilowatt KGEI in San Francisco. There were an additional 11 shortwave stations, but they were unprofitable to operate. During WWII at the request of the US government, Crosley built what became VOA-Bethany, a major short wave transmitter for the Voice of America which was active for the next 50 years. VOA's purpose was to let the world know of the US efforts in the war, to give hope to world, and to counteract propaganda being broadcasted by Germany and Japan.

In 1930, Crosley added refrigerators and other appliances like stoves, washers, record players and ironers to his products. His Icyball was an early non-electrical refrigeration device using a small kerosene heater to produce an evaporative cycle to create cold. Several hundred thousand Icyball units were sold. In 1932 Powell had the idea of putting selves in the door of refrigerators which he patented and used with his very successful Shelvador line. His idea was universally adopted by other refrigerator manufacturers after his patent expired.

In the late 1930s, the Crosley Reado was introduced which was an early form of faxing information. It converted text and images to radio signals that could be transmitted and then printed. Crosley sold a device called XERVAC which claimed to revitalize hair cells and promote hair growth. Crosley also produced the first push button radios. Crosley considered manufacturing airplanes and had five Crosley Moonbeam planes designed and built. Plans to produce the plane commercially were abandoned though due the Depression.

In 1934, Crosley purchased the Cincinnati Red baseball team which was having financial difficulties. He instigated the first nighttime baseball games using newly installed electric lighting which resulted in higher attendance than daytime games. He also started broadcasting play-by-play coverage of games on his local radio station which resulted in even higher attendance. Within 5 years of Crosley broadcasting the Reds' games, all major league teams had radio broadcasts of their games.

In 1939, Crosley returned to producing automobiles. He produced a small car with a price around \$350 that were sold by department stores and his appliance dealers. Prior to stopping production during WWII, 5,757 Crosley cars were produced. After the war, a new model was designed that got between 30 and 45 miles per gallon. In 1949 he introduced the first disc brakes on American cars. About 75,000 Crosley cars were sold before production ended in 1952. Both Powell and Lewis Crosley have been inducted into the Automotive Hall of Fame.

## Presented at the 1939 World's Fair

Like the rest of American industry during WWII, Crosley Corporation made a variety of products for the war. Crosley produced radio transmitters, radar equipment, powered gun turrets, bomb-sights, field kitchens as well as experimental motorcycles and miniature jeeps. Most significant was the proximity fuse which is considered by many the 3rd most significant development of the war years behind only the atomic bomb and radar. The fuse was manufactured by several companies, but Crosley made more than

any other manufacturers and made several production design innovations.

Powell Crosley died in 1961 after over 50 years of being one America's greatest inventors, industrialists and entrepreneurs. One of NMRCC's silent key members, Vern Thackery actually knew Powell personally.

~Chuck Burch

**★ THE ★ CAR ★ OF ★ TOMORROW**  
**AT THE WORLD OF TOMORROW**

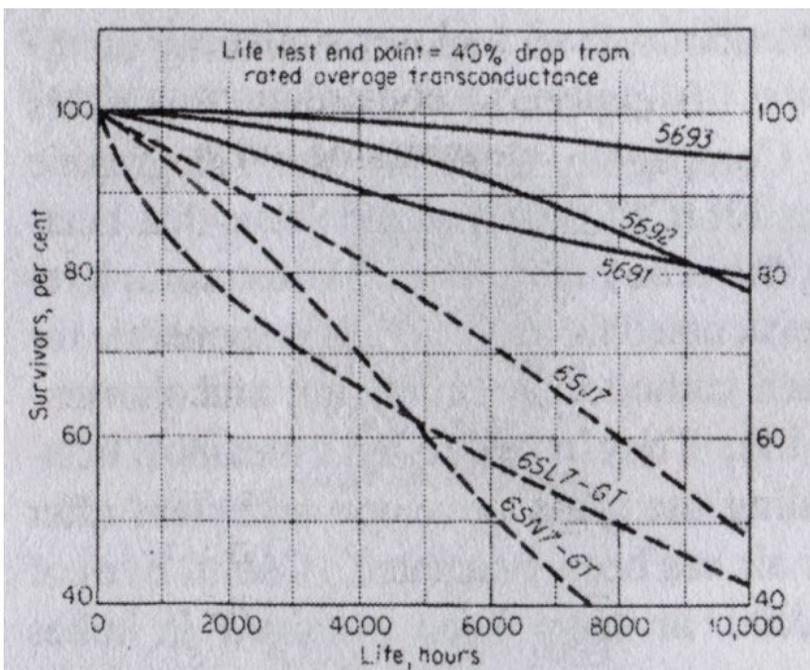
AS SHOWN AT THE CROSLY BUILDING AT THE N. Y. WORLD'S FAIR ALSO THE AMAZING **FREEZORCOLD** Shelvador Refrigerator Feather Touch Electric **MAGNETUNE RADIOS**

SEE THE NEWEST OF THE NEW IN HOME APPLIANCES AT POPULAR PRICES

**CROSLY**

Reado, facsimile radio printing—Crosley Camera, Press Jr. model—Gas and Electric Ranges — Electric and Gas Engine Washers — Electric Ironers — at Crosley Dealers everywhere.

LITHO U.S.A. © NYGWF



### << TUBE TRIVIA

Comparison of Special Red Base and standard tubes on 10,000 hour life test. End of life occurs when the transconductance drops to 40 per-cent from rated values. Now we know why Red Base tubes are worth more than standard tubes.



**NEW MEXICO RADIO COLLECTORS CLUB**

**New Mexico Radio Collectors Club**

Richard Majestic (Membership inquiries)  
 5460 Superstition Drive  
 Las Cruces NM 88011

E-Mail: [ronmonty@comcast.net](mailto:ronmonty@comcast.net)  
 Phone: 505 281-5067  
 E-Mail: [rmajestic@msn.com](mailto:rmajestic@msn.com)  
 Phone: 575 521-0018

FOR INFORMATION CHECK THE INTERNET  
<http://www.newmexicoradiocollectorsclub.com/>

*The New Mexico Radio Collectors Club is a non-profit organization founded in 1994 in order to enhance the enjoyment of collecting and preservation of radios for all its members.*

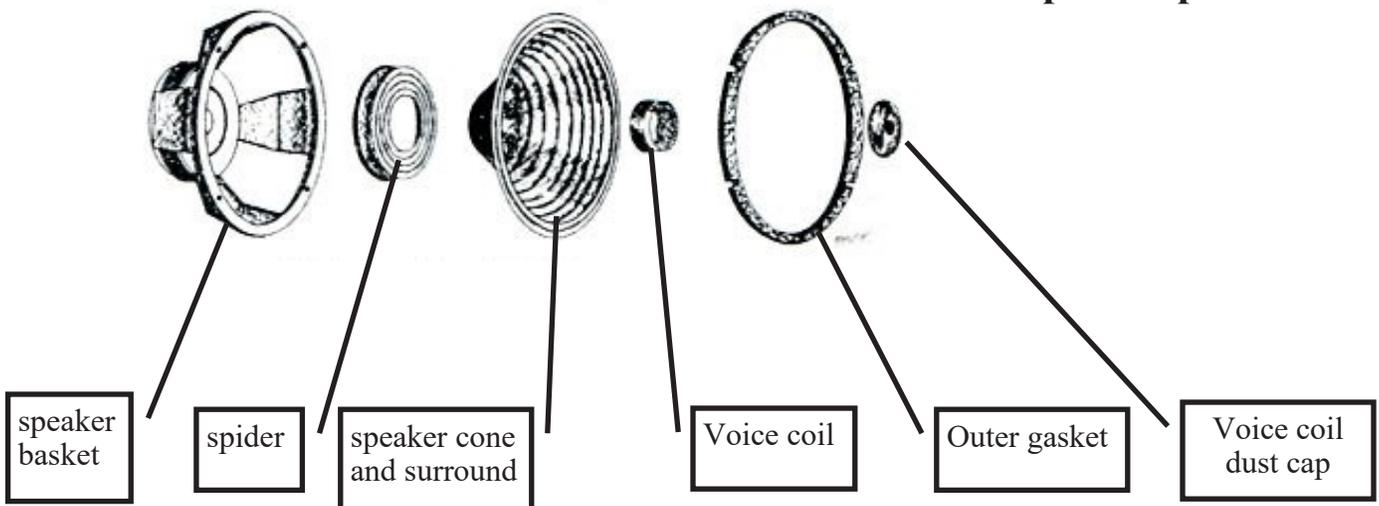
*NMRCC meets the second Sunday of the month at The Quelab at 680 Haines Ave NW, Albuquerque NM, 1:00PM meetings start. Visitors Always Welcomed.*

**NMRCC NEWSLETTER**

THIS PUBLICATION IS THE MONTHLY NEWSLETTER OF THE NEW MEXICO RADIO COLLECTORS CLUB. INPUT FROM ALL MEMBERS ARE SOLICITED AND WELCOME ON 20<sup>TH</sup> OF THE PRECEDING MONTH. RICHARD MAJESTIC PRO-TEMP NEWSLETTER EDITOR, SEND ALL SUBMISSIONS IN WORD FORMAT, PICTURES IN \*.JPG FORMAT TO: [RMAJESTIC@MSN.COM](mailto:RMAJESTIC@MSN.COM)

USPS Stamp

**loudspeaker parts**



Two great sources of speaker parts and service, they have replacement cones, some identical to original and they have parts.

<http://reconingspeakers.com/>

<https://www.simplyspeakers.com/>