The Indiana Historical Radio Society BULLETIN

Volume 47 *Winter 2018* *Number 4*

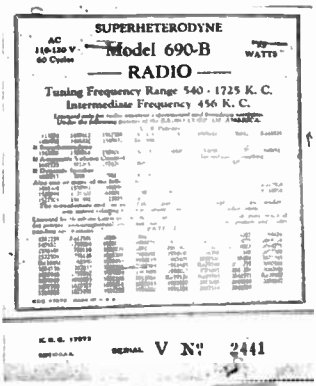
inside:

- **A Kingston Radio Chairside**
- **A Broken Case Clock Radio**
- **WOWO AM Stereo**

Saturday, March 9th
8 to 11:30 AM
The Indiana Historical Radio Society meets at Heritage Hall, Johnson County Fairgrounds (Franklin)

The BULLETIN
A PUBLICATON OF THE INDIANA HISTORICAL RADIO SOCIETY.
CELEBRATING FORTY-SEVEN YEARS OF DOCUMENTING EARLY RADIO

The Indiana Historical Radio Society Bulletin
Winter 2018



On the Bulletin covers :

The front cover of this issue features a "Made In Kokomo" Kingston Glass top Arm Chair Radio, model 690-B.

The back cover pictures a "New old stock" Zenith Windcharger. The windcharger was displayed in the 2018 Greenfield Meet parking lot. Our apologies to the IHRS member who displayed the Zenith—we don't remember your name. It is not a good excuse, but most of us will admit, it is the what (not the who) that shows up at vintage radio meets that is first to grab our attention.

In this issue:

On ***page 3*** - The IHRS 2019 Winter Meet will take place at a new location—the 4H Heritage Hall building on the Johnson County Fairgrounds (Franklin). If you are new to our Vintage Radio meets, be there early. Though the meet officially stars at 8AM there is considerable activity during the 7 to 8AM set up period.

Page 4 - Fred Prohl writes about his Kingston glass top Armchair (AKA Chair Side) AM radio.

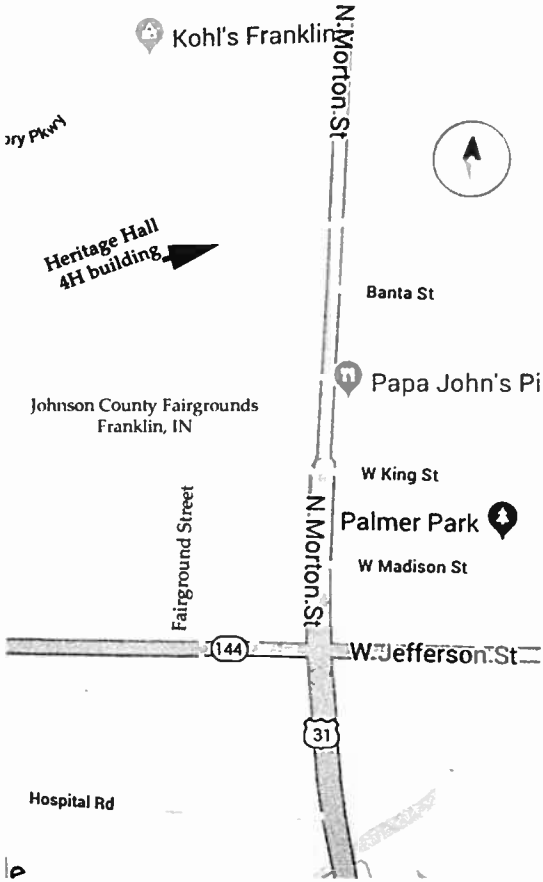
Page 8 "Restoring a Motorola 63C Clock Radio". Ed Dupart rescues a broken plastic case non-working Motorola radio that many of us would have pulled apart for parts.

Bob Streeter, W8ST, displayed WOWO AM Stereo Broadcast equipment at the Fall IHRS meeting in Greenfield. Bob's response to questions about the display begin on ***page 14*** of this issue of the Bulletin.

Thank you Ed Dupart for photography.

IHRS 2019 Winter Meet NEW LOCATION!

IHRS Winter Meeting
Saturday March 9, 2019
7:00Am to about 11:00AM.
At the Johnson County Fairgrounds, Franklin, Indiana (South Indianapolis)
Meet at the Heritage Hall building, Johnson County 4H facility. North East corner of the Fairgrounds.



The Johnson County Fairgrounds is north west of the US31 and SR144 intersection, Franklin, IN. (250 Fairgrounds Street, Franklin, IN 46131)

The IHRS Winter Meet is a **Swap N Sell indoor meet**. The doors to the Center will open at 7:00 AM for setup and Swap N Sell.

Old Equipment "Popular Vote" Contest is open to all entries of vintage radio and radio related equipment. Tables for the display of vintage/ unique electronic equipment will be available.

The Popular Vote Contest is a single category:

OPEN TO ALL RADIOS AND RADIO RELATED EQUIPMENT

Registration fees: Admission to the Vintage Radio Meet is free. Swap table rental: IHRS members - $10.00 for each table; non-IHRS members – $15.00 for each table. Tables are 6' rectangular.

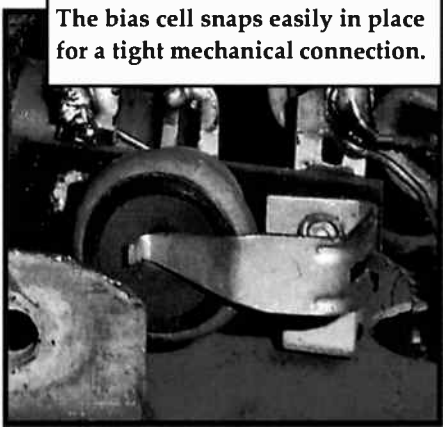
Meet contact: Fred Prohl, 317-736-1228

The popular "Salvage Sisters" Antique Show will be in Scott Hall on the Fairgrounds the same Saturday, March 9 from 9:00AM to 3:00PM. Admission—$2.00.

A Kingston Chairside

Model 690-B by Fred Prohl

My Kingston chairside was an eBay purchase about ten years ago. It is an AM band receiver with six tubes. A check of Riders gave a number of Kingston radio schematics but none for a Kingston model 690-B. It took just a quick look when I flipped the chassis to tackle the capacitors to see that the 690-B circuit uses a bias cell to place a low negative potential on the grid of the detector amplifier tube. The easy to remove bias cell measured .025 volts, not even close to the expected negative one to two volts. So what are the options to correct the loss of grid bias voltage.



The bias cell snaps easily in place for a tight mechanical connection.

In the December 2008 Bulletin Ed Dupart wrote about his solution to dead bias cell:

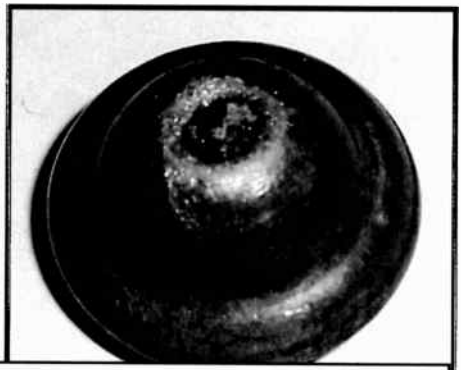
"Around 1936 or so, radio manufacturers started putting a tiny button looking battery of 1.5 volts in low cost

radios in the first audio stage, usually using a 75, for biasing. When the battery went bad, the radio kept on playing, but may be a little distorted and/ or the volume control acted weird when turning it up at higher levels. To someone that hasn't worked on many radios of this vintage, they may wonder what in the world this button looking thing is and that is why I included pictures of it in an actual radio.

The question is what do I replace it with? First of all, the battery is a carbon cell of 1.5 volts that is pretty well encapsulated, so leakage isn't a problem. Since it is a bias battery, no current is drawn from it, so the shelf life is the battery life, which is a long time for this battery (cell). A side note here. The correct name for it is a cell, not a battery, although it seems most everyone calls D cells batteries, as in flashlight batteries. Two or more cells comprise a battery. Oh well, lets move on. One could replace it with a AAA 1.5 volt cell (battery), but there may be a leakage problem and a cobbled look with a cell (battery) tacked in underneath. What I did was clean out the guts of the original button cell and place a NiCad watch battery inside of it. There was no need to do any soldering, since the metal case of the NiCad cell is positive and makes a good connection with the case of the original button cell, which is also positive. The spring contact rests quite nicely on top of the negative terminal of the NiCad cell and holds it in place. At first glance, you can't even tell the modification has been made.

This repair worked great and I didn't need to make any modifications to the circuit." Ed Dupart

On the "Antique Radio Forum" someone suggested that it sometimes works if you drill a small hole in the cell and drop it in water. It sounded like it would be worth the try before prying apart the cell to insert a button battery. I drilled a 1/16" hole in the cell dimple, dropped it in luke warm water for about twenty seconds (till the bubbling stopped). Pulled the cell from the water, toweled it off and measured – 1.255volts! I tested it several times throughout the day and the cell held at 1.255vdc. I then sealed the hole with a broken tooth pick and instant glue. It has been over six months now and the bias cell still holds at 1.255vdc. With this unexpected success what will I do different the next time? – Use distilled water instead of tap



The Bias Cell with the sealed repair.

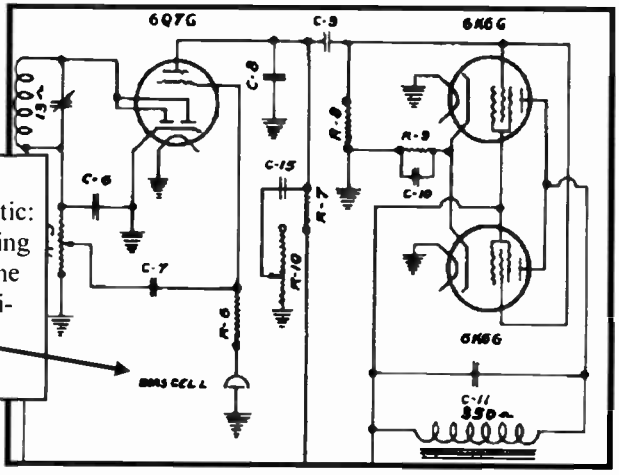
water. Time will tell.

The recapping of the chairside went well (still no schematic). Checked the tubes and they were well within good use. Tested the radio and am very pleased with its sound and reception.

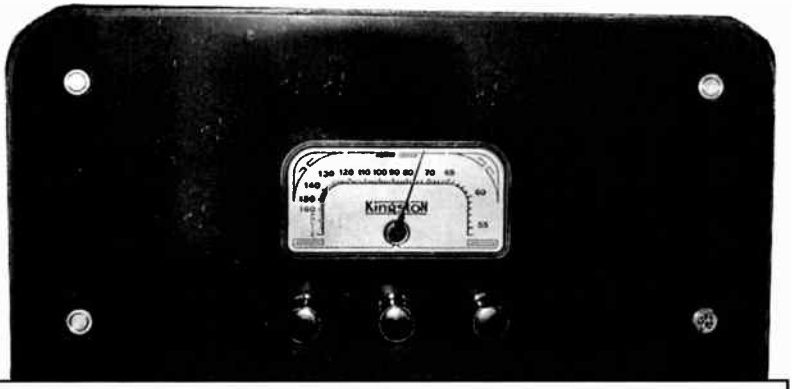
The cabinet was in pretty good shape with some fracturing of the rounded corner veneer. It took a bit of work with Elmers' wood glue and sawdust to fill, sand, and stain for a decent finish.

Fortunately the glass chairside top survives. It was missing one of the brass button screw heads holding the glass top to the cabinet. My wife's button box yielded a brass fleur-de-les button of the correct diameter. I disassembled the button, epoxied it to a bolt and filled the missing hole in the glass. (I have to point out to admirers the difference.)

When I'm showing off the Kingston chairside and saying it was made in Kokomo I would have this tingle of "am I sure it was made in Kokomo by the Kingston Radio Company??" It didn't help much when Bill Morris wondered if it might be a factory "A" radio (made maybe in Chicago for anyone who would want to put their name on it). It didn't help much with absence of a schematic. Nor did it help much to recall seeing a like radio at RadioFest in Chicago several years ago. It took a while searching the fuzzy cor-



From the Gamble (Kingston) 690B schematic: The bias cell circuit placing a negative 1.255vdc on the grid of the detector amplifier 6Q7G tube.



Kingston Chairside, model 690-B glass top. The knobs are not original, The original knobs are most likely bee-hive in shape.

ners of my brain to recall that the name on the RadioFest chairside was "Coronado". A check of Riders yielded a schematic for the Coronado Armchair radio, model 690-B under Gamble Radio. Yes, the same model number as my Kingston. A check at radiomuseum.org for a Coronado Armchair radio shows a duplicate of my Kingston.

If you take a close look of the patent tag on the Kingston chairside you'll see in the lower left corner the letters K. R. C. – Kingston Radio Company. The radio museum Coronado also shows a patent tag, which, except for a serial number, is a duplicate of the Kingston, including the letters K.R.C. With that, the K.R.C. tag, I gained confidence that the Kingston Chairside was made in Kokomo. I'm more confident with the comments by Jim Fred, in his September 1989 IHRS Bulletin article "The Kingston Radio Story" stated "Before WWII Kingston had been one of the largest "Private Brand" radio manufactures of farm battery radios. Their largest customers were Gamble Stores (with the Coronado brand name) and Western Auto Supply Company (Truetone)."

A newspaper search for Kingston Chairside ads yielded little. A search for the Coronado Arm Chair provided many ads, all for Gamble Stores. See page 21 for a Gamble Stores ad.

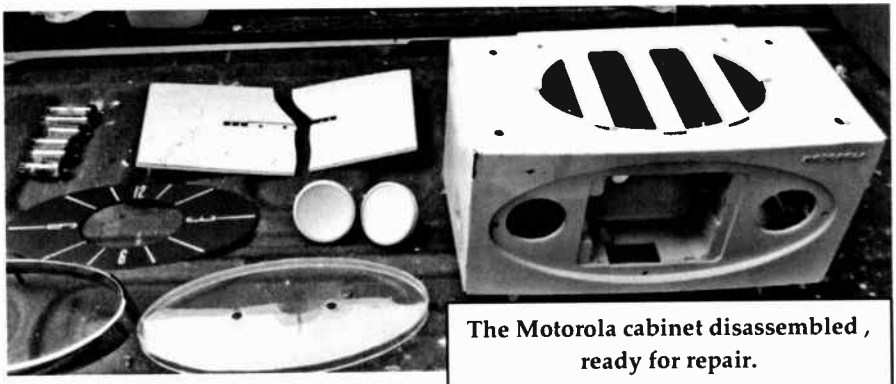
Fred Prohl, December 2018

Motorola 63C Clock Radio

August, 2018

By Edward Dupart

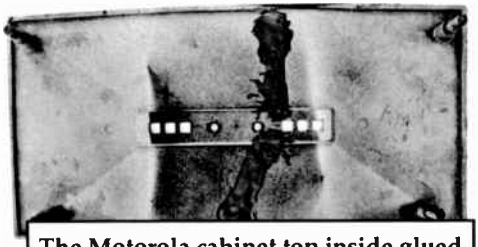
I acquired a Motorola 63C from the estate of a local radio collector and it was in pretty bad shape, but it is so representative of radios from the 1950's that I felt it was worth restoring. The radio was an off white with many scratches that went right down to the original black Bakelite color and the top was broken into two pieces. Then pile lots of dust and dirt on top of it and it made for one nasty looking radio, but I saw gold under all that crud. The chassis was rust free and it has an RF stage plus the ability to plug in a coffeepot, so it was a high quality clock radio, worthy of a restoration.



The Motorola cabinet disassembled , ready for repair.

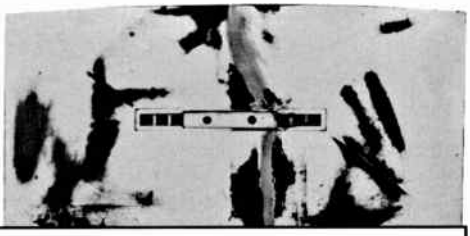
My first step was to disassemble the whole radio and take 409, a strong cleaner, to the cabinet, the knobs and everything that wasn't electrical. Taking it apart was not that easy, because of the rectangular push-on clips that held in the clock and the top. The pegs that the clips were on were in good shape and I did not want to risk breaking those pegs, so it was a slow process in removing the push -on clips. A small screwdriver and needle nose pliers were used to remove the clips and the clips were moved up the pegs a little at a time not using much force. Eventually they came off. After that all the parts were soaked in 409, wiped off and washed in clear water. The radio had been used in a kitchen at one time because of all the grease build up on the inside of the radio, but the 409 easily removed the grease. I knew I would have to repaint the radio and I did not want any trace of grease or dirt

on this radio. Paint does not stick too well to grease. So at this point the cabinet and non-electric parts are clean.



The Motorola cabinet top inside glued and filled with JB Weld.

The broken top was the next step in restoring this radio. The two pieces were super glued together and after it set for a few hours I mixed up some JB Weld and put it over the crack on the bottom side that cannot be seen when the radio is put together. The bottom side is not neat but the JB Weld is about ½" wide and proba-



The Motorola cabinet top exposed surface filled with JB Weld and leveled .

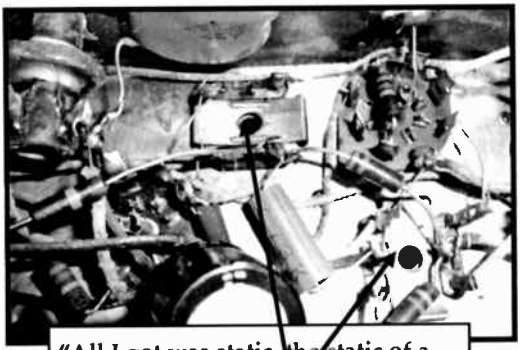
bly about a 1/16" thick and adds a lot of strength to the top. The top has to be neat and so I took my Dremmel tool with a burring bit and create a valley over the crack and the crack or valley is filled with JB Weld. The excess JB Weld is scraped off with a straight edge, actually, I used a Popsicle stick. Another coating may be needed, but the valley has to be filled. Once the JB Weld has cured, wet or dry 400 grit sandpaper is used with a flat block and water to make the valley perfectly flat with the rest of the cabinet and once dry it is ready for primer paint. Automotive finishes were used and the primer I used was a red oxide filler primer that can fill scratches and other imperfections. The color of the primer is not that important, but I had the red primer and I wanted to use it up. The paint I used was in cans, so I didn't have to use my compressor and spray gun and these paints are available at the local auto supply house, NAPA, Advance Auto, Auto Zone, etc. The primed cabinet top looks really good especially compared to what it did look like.

Now to tackle the rest of the cabinet, which wasn't difficult. I wet sanded all the scratches with wet or dry 400 grit sandpaper and made it perfectly smooth and it blended in nicely with the black Bakelite. I used the same red oxide filler primer on the rest of the cabinet and now the whole radio is red. A clear coat of lacquer would look good with this red, but after wet sanding the primer the cabinet

The Motorola cabinet lightly sanded in preparation for the primer/filler.

was ready for the off white. I wanted it to be the original color and I had some leftover off white from a previous radio restoration, but it wasn't enough. So off to the auto store I went and bought a can of GM touchup lacquer that was a perfect match. The difference between the two paints was the first can produced a nice shine, but the second can didn't have a shine and required a clear, glossy topcoat. So a clear, glossy lacquer was put on top of the off white and now it shines. It took about three coats of the off white with a little wet sanding in between coats to cover the cabinet completely. Then white polishing compound was used on the clear, glossy lacquer and wow, does it look good now! I can't find the crack on the top without taking a peek at the bottom of the top. The cabinet is ready to be put back together and it does look good.

I restored the cabinet first hoping there wouldn't be any major problems with the chassis. After all the chassis looked so nice, so I thought it would be in good shape. After replacing all the capacitors and surprisingly several were still good and testing the tubes it was time to plug it in and see if it works. I did and all I got was static, the static a bad IF transformer with silver migration makes. The audio stage has a packaged circuit and sometimes they breakdown so I made sure it was OK and it was so now to figure out which IF transformer is bad. Out came the RF signal generator and the signal applied at the grid of the



"All I got was static, the static of a bad IF transformer." . . . "so now to figure out which one."

Two possibilities from spare parts, a used IF and a new PC mount transformer.

IF amplifier went through just fine, but at the plate of the converter tube (12BE6) nothing went through so I knew it was the first IF that was bad. A roadmap was made where all the wires went to the IF transformer and a picture was taken of the bottom of the chassis so it was time to remove the bad IF transformer. Some people take the time and rebuild the IF transformer, but it is faster to just replace it with another transformer. Some used IF transformers and a new PC mount transformer were dug out from my parts supply and I alligator clipped them in one at a time, of course, to see which one worked the best. The brand new PC mount one worked the best, but it used a different housing and the pins were different. The two IF transformer were removed from their respective housings and the PC mount IF transformer was put into the original Motorola housing and the tabs used to hold the transformer in place lined up perfectly. Loops were formed on the wires and parts and crimped onto the PC mount pins and soldered. Now the radio plays well and a little touch alignment made it quite sensitive and pulled in distant stations quite well. The RF stage really helped the sensitivity of the radio. The rubber grommets on the tuning capacitor were replaced and that took care of the looseness. Sliding the chassis into the cabinet almost finished the radio.

What was discovered was the threaded part of the clock shaft for setting the time was broken off, so that had to be fixed. What was done was to cut off the head of a small screw and hold it at the end of the brass clock shaft and wrap some solid #22 wire around the clock shaft and the screw. The brass shaft was sanded clean and flux was applied to both the shaft and the screw and the two were soldered together. Two washers and two nuts with lock washers were placed on the screw to form a knob, which worked quite well. Not as pretty as the original, but it worked and it is in the back where it isn't visible. Now the radio is done and the back put back on and the clock was checked for accuracy on the alarm settings and all worked well. It is now a nice looking radio that displays well on my shelf.

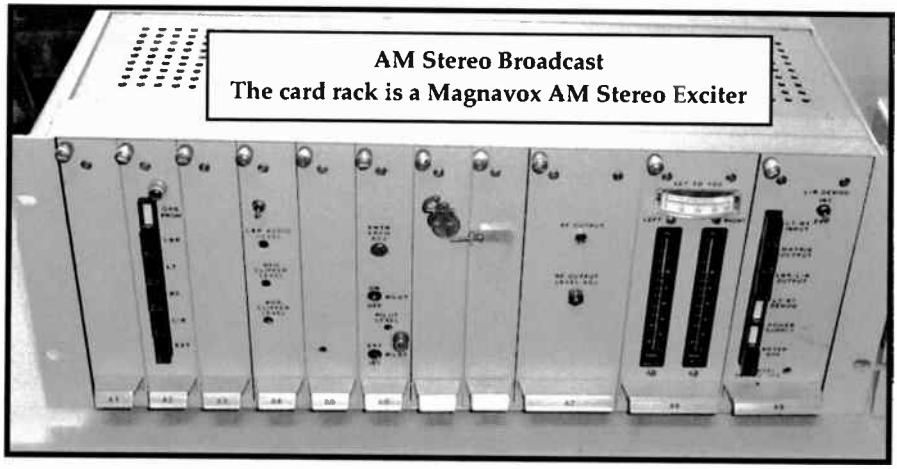
The primer I used was a red oxide filler primer that can fill scratches and other imperfections. *Ed*

GM touchup lacquer was used for the off white finish. A clear glossy topcoat was required to give a soft luster. *Ed*

Addendum:
My wife and I thought the original off white was boring, so I found another factory color that we both liked and so now the radio is aqua and now, we really think the radio stands out. The color used was a standard off the shelf Rustoleum aqua lacquer. Ed

AM Stereo Broadcast—WOWO Radio

IHRS member Bob Streeter, W8ST, displayed equipment used at WOWO AM radio to broadcast AM Stereo in the 1980's and 1990's. Bob was asked to describe the function of each of the three units on display for publication in the IHRS Bulletin. He responded as follows:

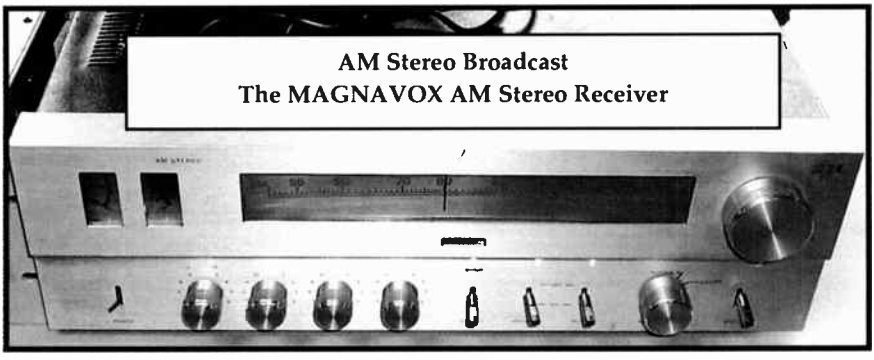


The **card rack** is actually the only surviving Magnavox AM Stereo Exciter. It was manufactured by Continental Electronics Manufacturing Corporation (Dallas, TX) under contract to Magnavox. The exciter was designed for Magnavox by Jack Sellmeyer, P.E. (a Magnavox consultant). The card rack system was used for ease of maintenance. This unit provided the FM modulated RF signal (used for the pilot tone or slow speed digital data) and the phase modulated RF

carrier applied to the standard AM transmitter. The unit also provided the correct audio signal to the AM transmitter modulation circuits. This particular exciter saw service at WOWO and drove the 50 KW transmitter in AM Stereo continuously at the WOWO transmitters in Roanoke, IN from April 26, 1982 to March 19, 1995 when the Motorola AM stereo system was mandated.

AM Stereo Broadcast
The BELAR AM Modulation Monitor

The **BELAR AM Modulation Monitor** is a modified Belar AM broadcast station modulation monitor. In this case, the standard Belar AM monitor was modified to include a detection system for the Magnavox AM Stereo system. The monitor displays the modulation parameters of the envelope modulation (L+R channel), the angular modulation (L-R Channel), the pilot tone, the left audio, and the right audio channels. This particular monitor saw service at WOWO during the AM Stereo test program, with supervised performance data provided to the FCC. This monitor ran continuously at the WOWO transmitters in Roanoke, IN from April 26, 1982 to March 19, 1995 when the Motorola AM stereo system was mandated.



AM Stereo Broadcast
The MAGNAVOX AM Stereo Receiver

The **Magnavox AM Stereo Receiver M78** is a special version of the Philips/Magnavox High Fidelity audio system AH673 AM/FM tuner. The front panel was reconfigured for AM Stereo only. This Philips tuner used toggle switches in place of the production version that used touch sensitive switches. This receiver was used at many NAB and NRBA shows in the Magnavox AM Stereo demonstration booth. This particular receiver also saw service at the WOWO studios in Fort Wayne (IN) as the station over-the-air monitor. This monitor ran continuously at the WOWO studios from April 26, 1982 to March 19, 1995 when the Motorola AM stereo system was mandated.

Magnavox was one of the original three AM Stereo system proponents during the National Association of Broadcasters AM Stereo test program in the 1975-1977 time frame. Motorola and Belar were the other two proponents. On April 9, 1980, the Magnavox system of AM Stereophonic broadcasting was initially selected by the Federal Communications Commission (FCC) as the single national standard for AM Stereophonic broadcasting. Due to an unfortunate procedural error at the FCC, several other companies attempted to inject their own AM stereo system design as the national standard. On March 4, 1982, the FCC adopted the infamous "marketplace" decision, allowing all of the proposed AM Stereo systems to compete for listenership among the AM stations broadcasting an AM Stereo signal of one format or another (all systems were mutually non-compatible). The end result was the defeat of AM stereo, and some would claim the defeat of AM broadcasting as FM became the dominant broadcast medium. An act of Congress required the FCC to adopt the Motorola AM Stereo system for exclusive use as the AM Stereophonic broadcasting standard starting on March 20, 1995.

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The Indiana Historical Society in Indianapolis has one of the few Sony SRF-A100 receivers as part of their AM stereo archive. The SRF-A100 was the only successful receiver "for all 5 of the AM Stereo systems". There are other SRF-A100 receivers at the Antique Wireless Association Museum, as well as performance data on the SRF-A100 receiver.

Bob Streeter, November 2018
(Fred Prohl, Editor)

While searching for items of interest regarding AM Stereo Radio I located a YouTube posting titled "Air Check of WOWO's December 10, 1994 AM Stereo Broadcast" submitted by Century3horizons, published on Dec 6, 2015. I asked Bob if this site is a reference that IHRS members would find of value. Bob responded with the following: "You are welcome to reference the air check material, but it was not made with any Magnavox participation, so I cannot vouch for the YouTube material. The Sony SRF-A100 receiver used for the air check is an excellent Magnavox receiver, but a terrible Motorola receiver. The air check text indicated that WOWO was running the Motorola CQUAM AM Stereo system, but in reality it was the Magnavox equipment displayed at (the IHRS Fall 2018) meet operated with a 10 Hz pilot tone to trigger any Motorola AM stereo receivers which demanded a 10 Hz pilot tone to operate in the AM stereo mode. The air check was actually a Magnavox system air check. The SRF-A100 does not use a pilot tone. It makes a difference when you know the whole story!" *Bob Streeter (and Bulletin Editor)*

Prepare now for the IHRS 2019 Vintage Radio Contests.

Each of the three "Popular Vote" contests (Winter, Summer, and Fall Meets) will be a single category "Open to all radio and radio related equipment". Popular Vote is when all those attending the meet can vote for their favorite entry.

The Spring Meet will continue with a Judged contest—a team of IHRS members determine first and second place of the entries with a "Best of Show" recognition. The Spring meet contest categories will be 1. Indiana Made Radio, 2. Open to all radios and radio related equipment, and 3. Vintage tube amplifier equipment.

2019—VINTAGE RADIO ACTIVITY—2019

Indiana Historical Radio Society
indianahistoricalradio.org
March 9 Swap Meet
NEW LOCATION—FRANKLIN, INDIANA!
Johnson County Fairgrounds, Extension Services, Heritage Hall
See page 3 of this Bulletin

ARCI—Antique Radio Club of Illinois
antique-radios.org
Swap Meet: February 24
American Legion Hall, Carol Stream, Illinois

MARC—Michigan Antique Radio Club
michiganantiqueradio.org
January 26, Vintage Electronics Expo
Costick Center, Farmington Hills, MI

CORA Central Ohio Antique Radio Association
coara.org
Club Meeting, February 20
5590 Karl Rd, Columbus, OH

SPARK Society for the Preservation of Antique Radio Knowledge
See sparkantiqueradio.com for monthly meetings

CARS—Cincinnati Antique Radio Society
cincinnati –antique-radio.org

PARS—Pittsburg Antique Radio Society
pittantiqueradios.org
March 23 9AM to 2PM
at the Brentwood Presbyterian Church

AWA Antique Wireless Association
www.antiquewireless.org

Radio Scratchy, So Markle Breaks Neighbor's Sign

Fred J. Markle, Kingston radio dealer, solved the problem of his alleged radio reception interference this morning when he walked in Dalon's Market, next door to his place of business on Wyoming avenue, and, with a stick broke a neon electric sign.

Pleading guilty to the charge of malicious mischief when arraigned before Justice of the Peace James Morgan, Markle, who was held in $300 bail for action by the grand jury, said that the sign interfered with his business. Markle declared that radio reception was greatly improved after he had broken it.

Kingston, PA
not
Kingston, Kokomo

The Wilkes Barre
Times Leader
January 8, 1936

If the date on your mailing envelope for this issue of the Indiana Historical Radio Society Bulletin is 12/18 or earlier, it is time to renew your membership. Make your check payable to the *Indiana Historical Radio Society* in the amount of $15.00 per year and send to: **Don Yost, IHRS, 3814 E 400 N, Windfall, IN 46076**. Include your current mailing address, if not on your check, and your email address, if you have one.

Renew your Indiana Historical Radio Society membership NOW! (thanks)

IHRS 2018 Fall Foliage Meet, Greenfield

Picture credit—Edward Dupart

The Handiest Radio Ever Built!

CORONADO ARMCHAIR MODEL WITH PLATE GLASS TOP

Relax in your favorite chair and go from program to program as easily as turning the pages of a newspaper. That's the Coronado Armchair Radio. And it's just as beautiful as it is convenient. Cabinet is of bent walnut veneer with striking cross - grained walnut inlay. Entire top is covered with heavy plate glass so ashes, liquids and dust cannot mar dial or top of cabinet. This Coronado Armchair model with 6 tubes and extra large speaker has an amazingly fine tone quality — comparable to a console radio.

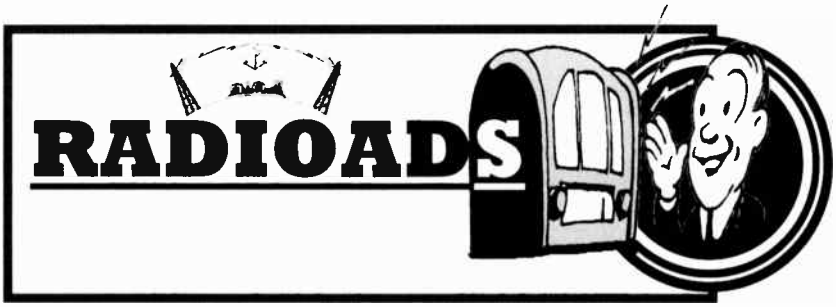
$1.25 WEEK
Payable monthly

CASH PRICE

$39.95

A Gamble Stores ad for a Coronado Armchair radio model 690-B. October 3, 1931, The Minneapolis Star Tribune.

(See page 4 of this Bulletin.)



Submit your "FREE TO CURRENT MEMBER" RadioAd by the 15th of February, May, August, or November in time for the Bulletin issue that follows. Unless otherwise requested, RadioAds will run two consecutive issues.

For Sale: Phillips Sagitta model 363-A, missing one tone push button, plays, $30.00, speaker from Philco 95, $15.00, eye tube 6G5 $5.00, used tubes tested good in playing radio $2.00 each 6V6Gt, 224A, 5U4, 50L6, 227, 6F6GT, 80,. Used tubes one dollar each 12BA^, 12BE6, 12AV6, 35C5, 50C5, 12SK7, 35L6, 50L6 Contact James S. Looney at mowman7777@yahoo.com, 276-531-8677.

2019 Officers	Responsibilities
Alex Whitaker President 2927 South East Street Indianapolis, Indiana 46225 317-787-2854 ehscott@sbcglobal.net	Activities, business, administration, & publicity
Michael Feldt, Vice President 12035 Somerset Way, East Carmel, Indiana 46033 (317) 844-0635 email: feldtm@msn.com	Sites and dates of meets
Don Yost, Treasurer 3814 E 400 N Windfall, Indiana 46076 (765) 945-7014 email: dearsir@netscape.com	Dues, financial, and address change. Please notify immediately of change of address.
Editor Fred Prohl 615 Wren Drive Franklin, IN 46131 (317) 736-1228 email inhistradio@gmail.com	News articles, radio ads, photos for Bulletin publication Maintain indianahistoricalradio.org
Dr. Ed Taylor, Historian 1790 East 54th St. Apt 112 Indianapolis, IN 46220 (317) 259-4842	Indiana Historical Radio Society Historical Documentation

Bulletin Deadlines: News, Articles & Radio Ads, 2/15, 5/15, 8/15, 11/15
IHRS Web site address: www.indianahistoricalradio.org

The INDIANA HISTORICAL RADIO SOCIETY is a non-profit organization founded in 1971. Annual membership dues of $15.00 includes the quarterly IHRS "BULLETIN." Radio-Ads are free to all members. Please include an S.A.S.E. when requesting information. Send applications for membership and renewals to Don Yost, our treasurer as noted above.

The BULLETIN
A publication of the Indiana Historical Radio Society
Forty-seven years of documenting early radio.

On display in the parking lot, at the Greenfield Fall IHRS meeting, a "new old stock" Zenith wind charger. Manufactured by the Wincharger Corporation, Sioux City, Iowa.