



Vol. 32

Summer, 2003

No 2



**FADA with a new plastic window lens.
How to do it, inside.**



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Responsibilities

Activities, Business,
Administration, & Publicity

Sites and Dates of Meets

NOTE

Applications and Correspondence

Dues, Financial, and Address
Change. Please Notify
Immediately of Change of Address.

News, Articles, Photos,
Radio-Ads

Donations & Scrapbook Material

IHRS Museum Curator

Bulletin Deadlines: News, Articles & Radio Ads, 2/15, 5/15, 8/15, 11/15

IHRS e-mail Web site address: www.indianahistoricalradio.org

The INDIANA HISTORICAL RADIO SOCIETY is a non-profit organization founded in 1971. Annual membership dues are \$15.00/year or 2 years/\$25.00, which includes the quarterly IHRS "BULLETIN". Radio-Ads are free to all members. Please include a S.A.S.E. when requesting information. Send applications for membership and renewals to Fred Prohl, our treasurer as noted above.

IHRS ACTIVITIES for 2003 Our 32nd YEAR

Northern Indiana Summer Meet at Elkhart

September 6, 2003 – Saturday 8:00 AM Meet at the High Dive Pavilion, 500 East Beardsley Avenue, Elkhart, Indiana. Registration is \$5:00 per member/family. Out door Radio Swap and Sell. Silent auction. **Old Equipment Contest** 1. Battery radios of the 20s. 2. A.C. radios of the 30s. 3. Indiana made radios. 4. Radios costing the entrant \$25 or less. 5. My favorite radio. Included is a silent auction, pitch in lunch, and an IHRS business meeting. **Motels:** About a doz. motels North and South of I-80/90 at SR-9 (Cassopolis) Exit 92. Super-8, 345 Webster Ave., 574-264-4457. **Red Roof Inn**, 2902 Cassopolis St., 574-262-3691. Info: Ty Gregory, 574-264-0257 or Terry Garl, 574-679-4280, ihrsclk98 aol.com.

Fall Foliage Meet at Greenfield

October 11, 2003 – Saturday 8:00 AM Meet at the Riley Park Shelter, Greenfield, Indiana. (One block north of US40 on Apple Street.) Registration is \$5:00 per member/family. Indoor and outdoor setup space for Radio Swap & Sell. Vintage Radio Contest: **Category 1:** Farm Battery Radios, 1930's-1940's, wood or plastic that would be used in the home, not on a picnic. **Category 2:** Console Radios, 1934 - 1942 with 10 tubes or less. Registration is \$5:00 per member/family. Info: Glenn Fitch, 765-565-6911, Fred Prohl, 812-988-1761, indianahistoricalradio@att.net, Contest Info-Ed Dupart, 765-533-6272, edupart3@hrtc.net

Other Club Activities

MSARC For information contact George Freeman ralogueum@aol.com

NARC ACTIVITIES -2003

For NARC meet info contact: Jim Thompson, 612-822-4000 or Kip Wallace, 612-544-2547, KipWallace@dl-inc.com

ARCI ACTIVITIES - 2003

All meets at Elgin, IL, RAMADA INN, 345 River Rd. 847-695-5000.

Info: Tom Klienschmidt 847-255-8128 or Art Bilski 630-739-1060, OLDRADIO@NTSOURCE.COM

MICHIGAN ANTIQUE RADIO CLUB

July 11-13, 2003 Lansing, MI **EXTRAVAGANZA '03**

Info: Oran Sauder murrellr@ameritech.net (248) 437-4413 John Reinicke – john.reinicke@fanucrobotics.com (248) 626-4895

**Join the AWA-ANTIQUE WIRELESS ASSOCIATION
THE ORIGINAL AND LARGEST HISTORICAL RADIO-
COLLECTOR GROUP publishes the annual AWA Review.**

Membership is only \$20 per year

Write to: Antique Wireless Association, Inc.

Box E, Breesport, NY 14816

<http://www.antiquewireless.org>

IHRS Business News

IHRS Kokomo Spring Meet Secretary/Treasurer's Report

Family registrations	123 for \$615
Table rentals	58 for \$580
Lunch tickets	57 for \$342
Silent Auction	\$215.75
Donation jar, cups and Bulletins	\$50.09
Total receipts (excludes membership renewals)	\$1802.84

Expenses:

Johanning Civic Center	\$795.20
Rozzis (food)	\$624.75
Advertising	\$391.50
Name tags, table cover, printing costs	\$161.15
Insurance	\$117.00
Total expense	\$2089.95

Wava Smith donated items from Ross's collection that totaled \$155.25 in the silent auction.

IHRS 2002 Year End Report

Indiana Department of Revenue form IT-35AR 2002 was recently submitted (due May 15) with the following IHRS financial content:

Credit		Misc.	\$1,034
Dues	\$3,230	Advertising	\$329
Meet Registration	\$3,355	total debit	\$6,066
Gift	\$250		
total credit	\$6,835	2002 Begin Yr. Bal.	\$5,006
		Credit	\$6,835
Debit		Debit	\$6,066
Bulletin Print & Postage	\$3,085	2002 End Yr. Bal.	
Facilities Rental	\$1,150	\$5,775	
Insurance	\$468		

Misc. includes name badges, lunch table service, print paper & ink, non Bulletin postage and printing, coffee doughnuts, web site registration, etc. Fred Prohl

IHRS Museum Notes

If you wish to visit the museum, it is open every Saturday from 10-2pm in the winter and from April 1st to October 31st every Tuesday, Wednesday, Thursday, Friday and Saturday from 10-3pm.

Fred Schultz, IHRM Curator.

2003 IHRS DUES

Please send a check payable to the *Indiana Historical Radio Society* in the amount of \$15.00 for a one-year membership or \$25.00 for a two-year membership.

Send your payment to:

Fred Prohl, IHRS
3129 Lanam Ridge Road
Nashville, IN 47448

Please include your current mailing address, if not on your check, and your email address, if you have one.

Questions concerning your membership should be directed to Fred at fprohl@att.net or call him at 812-988-1761.

Comments from the Editor

Ed Dupart

The Kokomo meet was a success and was quite enjoyable for me! A couple of nice pluses for me, is that the weather can be nasty, but everything is inside and then there is the car museum! I like cars and there is quite a variety. Plus antique campers and an airplane hanging from the ceiling! Oh yes, there were even Kokomo made radios there.

I was happy to get some pictures of some unusual/favorite radios for our photo preview and the articles! Keep them coming! There is such a wealth of information among all the radio collectors with their diverse backgrounds. If you can, please leave a legacy by writing down some of your experiences and knowledge. Even if you can't write, find someone who can and dictate what you have to them and let them put it into writing.

I will welcome all suggestions for improving the Bulletin.

Please use e-mail or regular postal mail for sending articles and information to me. If you want to send me articles on a 3 1/2 or 5 1/4 floppy, that's great, too. I can work with virtually any word-processing program for DOS or windows designed for IBM compatibles. Please send computerized pictures in a BMP, JPEG or TIFF format. Pictures can be incorporated with the article done in Microsoft Word or WordPerfect. If you don't have your pictures computerized, send the photo to me, preferably 35mm. Polaroids lose detail when I scan them. If you want your pictures and articles returned to you, please let me know. Sorry, I'm not set up for Mac or Apple. Typewritten articles are fine, too, because I can scan those into my computer.

I will be looking for pictures of unusual radios from inexpensive to expensive radios that you normally don't see at shows for a picture gallery in the Bulletin.

Send me a photo of your favorite radio and I will put it in the Bulletin.

If I make a mistake, please let me know so I can correct it.

If you haven't been to the IHRS museum in Ligonier, Indiana, why not plan a visit? Even if it's a rainy Spring day, you can still make a trip there and get dried off looking at all the radios, but you may not even get wet getting out of the car with the roof overhang on the museum. This could be a good mini-vacation for anyone that likes radios. There are a lot of other attractions in the area to see. Contact Fred Schultz for more information. (260) 894-3092 e-mail: olradio@ligtel.com

Upcoming articles: repairing transistor radios, batteries for 2volt farm radios and replacing 6Kv capacitors in 7" to 9" early TV's.

Ed Dupart

Articles

The Tube Tester

By Dave Mantor

"From the Good Old Days", a familiar slogan that has been used frequently in the past, is also a way of describing a multitude of items that enthusiasts from all walks of life collect. We who enjoy old radios, or more correctly labeled collector radios, have no doubt used this slogan when we have wanted to tell a friend just how much we like radio sets "from the good old days."

Even though I have had a large number of old radios from my pre-teen days up to now and having been licensed as a ham radio operator for over 42 years, my major interest blossomed as I traveled to radio meets with my father-in-law, the late C.E. Strand. We enjoyed many a time as he would have me listen on a set of earphones to a program on WLW on one of his Atwater-Kent radios. So it is with this heritage, both inherited and learned, that has prompted me to continue in my personal pursuits of AC and battery sets as well as tube-type ham gear.

As many of you can already testify to, it isn't long after getting a set or two and using them, that you soon realize certain kinds of service work will be necessary to maintain a collector radio. I am fortunate in that after buying our older home here in Fairmount, I have been able to set up a fairly nice shop in the second building on our property. It is 30x40 with enough room to house a boat along with several vehicles and still allow work benches to be in use.

There are several pieces of equipment that, if not necessary, are at any rate very useful. A voltage and continuity checker that my late brother gave me many years ago when I was a teen has seen considerable use. The same is with a voltage-ohm meter (VOM) for being a multi-task unit. We can find ways to use other test units such as RF generators and oscilloscopes, but one of the most important pieces of test equipment for the tube radio enthusiast is the vacuum tube checker. There needs to be a space on your workbench for such a unit. You'll find after using one a few times you'll question yourself as to why it took so long for you to get one and how did you ever do without it?

So popular was the tube checker in past years that most drug stores had a stand-up console model somewhere in their store that radio owners could pull a suspected weak tube or a burn-out and take it in to have it checked. It was a fairly simple process to find your tube number listed on the roller chart or in the tube manual and then select the correct socket and settings to make the checks. Some tube testers had certain limitations but for the most part they all could determine open filaments, probably the most common of tube maladies.



(The "What is it?" item is a grid leak condenser used in early to mid 20's radios.)

I have a very nice EMC Model 205 portable unit for said purposes. With a varnished wooden case, it looks right at home on the bench or in the trunk of one's car right next to the RCA tube caddy. Making readings off its 4 1/2" meter are easy after you have made the proper settings from the roller manual. It will make a number of checks from low voltage and shorts to filament continuity. Tube bases from 4 pins to 9 will just about include most tubes a collector will need to check including voltage regulator and ballast tubes.



One special aspect is the simplicity of a tube checker. Fitting right in with the easy-to-read schematic, the ease at which a technician could use the tester is significant. To fully appreciate this, all you have to do today is take a quick glance at the schematic (if you can find it) of your basic table radio or receiver and you realize how much of an advantage radio service people had in yesterday's shop. For fear of being misunderstood, I speak of this advantage as being the fixable kind of advantage. In this present day of throw-away radios, the integrated circuits and micro-small components have all but eliminated the need for a radio technician to do anything more than centralize the problem and then pull, throw and re-install new boards. With the invention of miniaturization in electronics, the solving of one problem has created others. (My opinion)

So...what are tube testers worth today? I took a short walk through eBay's listing of testers and saw prices that ranged from a top bid of \$629.97 for a very nice portable Western Electric KS-15750-L1 to \$10-15 for lower-priced 3 and 4 base units. However, an example like the drug store console model that I mentioned earlier was not among the auctions for bid. It's been 13 years since I

saw one and that beautiful unit was in the Zenith collection of a man in Cedar Rapids, Iowa. Maybe one day I'll have the privilege of owning one.

For those of you who have Internet capabilities, there are some very nice websites that are dedicated to tube operation and testing. Check these out:

<http://members.aol.com/sbench/01/#TubeTest>

<http://www.vacuumtube.com/toppage31.htm>

Then there is the Tube Collectors Association, which you can find at:

<http://www.tubecollectors.org>

Tubes! Called valves by our British brethren, these small glass and metal covered contrivances have a solid place in our electronics history. Irregardless of any desire to be on the cutting edge of technology with microscopic components and wiring, tubes have stood the test of time. That is one reason that explains the love we have of old radios...that warm glow that comes from our favorite set as we listen. Only from tubes...ENJOY!

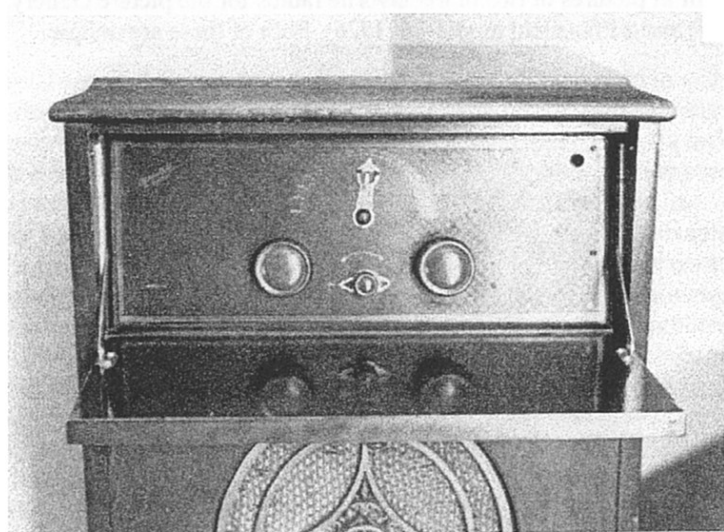
Dave Mantor
Fairmount, Indiana
merrijoy@comteck.com

Editor's note: I have an older model of Dave's tube tester and it is my favorite because of its simplicity and ease of use.

Picture Gallery **FAVORITE RADIO**

Steve Hilty sent in pictures of two of his favorite radios for the picture Gallery, a GE L50 (1934) and a Pfanstiehl model 18 (1926). Both of these are unique radios!



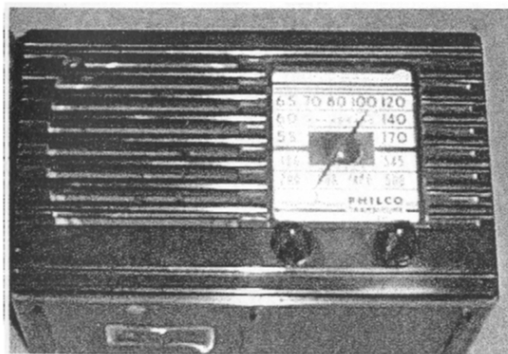


Ed's Tech Tip

Replacing Plastic Window Lenses on Small Radios

Earlier this year, at the Winter Indianapolis meet, I acquired a small Fada 450 Bakelite TRF set that needed the plastic window lens replaced that had aged, yellowed and cracked in half. I replaced it within days of the meet using plastic shaped in a ball that a Christmas toy came in and used my wood/coal stove to flatten the plastic. Then I used a piece of 3/8" wood cut out to match the shape of the window and melted the plastic around the wood. I talked to Peter Konshak at the Kokomo meet about it and he had replaced a lens also and his method was similar to what I did, so I decided to make another lens and list the steps how I do it. I had a very nice Philco TH4 with a missing lens so I decided to base this article on the Philco. It took me one hour to make a new lens for the Philco TH4, so this isn't a time consuming project.

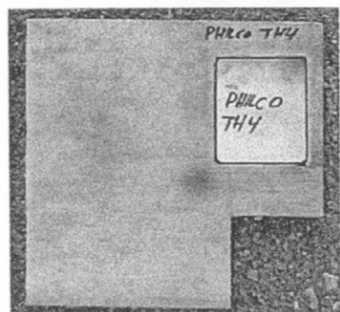
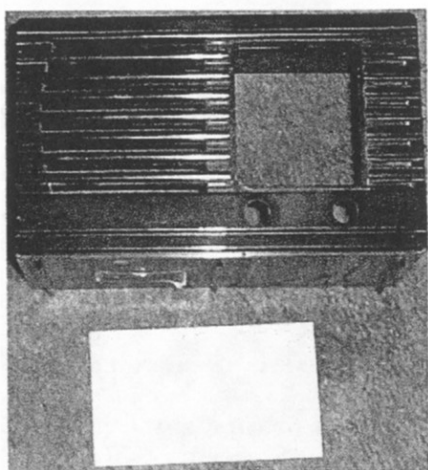
The first step is to obtain some plastic that is about the same thickness, flexibility and will retain a new shape when heated. For the Philco, I used a popular cotton swab container.



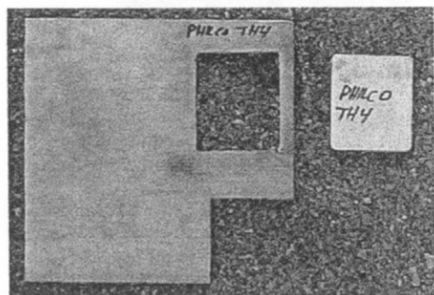
Philco TH4 without the plastic window.

SAFETY TIPS: I used a torch for this project and when working with plastics, this poses a fire hazard. Do this in a well, ventilated area that can sustain a possible small fire. Safety glasses, gloves and a long sleeve shirt aren't a bad idea, either. For the Fada, I used the top of my wood/coal stove, which worked out quite well and was safer. Some may elect to use their oven. Have fun, but be careful and don't get burned or burn the house down.

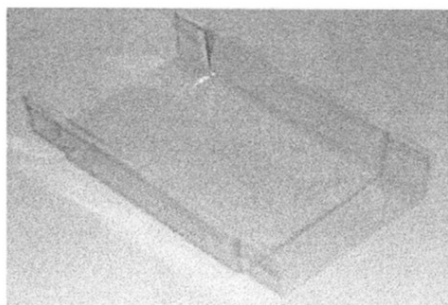
The second step is to remove the radio chassis from the cabinet and using paper, trace out the opening of the window.



The fourth step is to cut out the window with a scroll saw. File or sand down the wood window so it is smaller than the opening in the radio to allow for the thickness of the plastic on all four sides. I used a space of $3/32$ ".

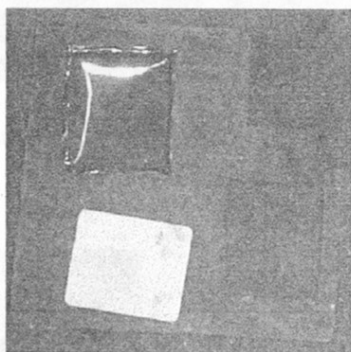
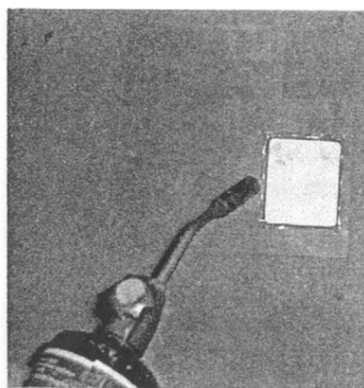


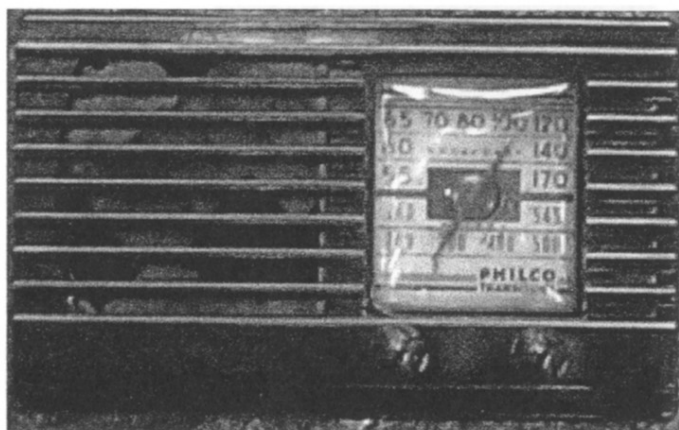
The third step is to cut out the tracing and glue it to a piece of wood of the appropriate thickness for the radio you have. I used a piece of $3/8$ " paneling. The missing corner on the paneling is from making the mold for the Fada.



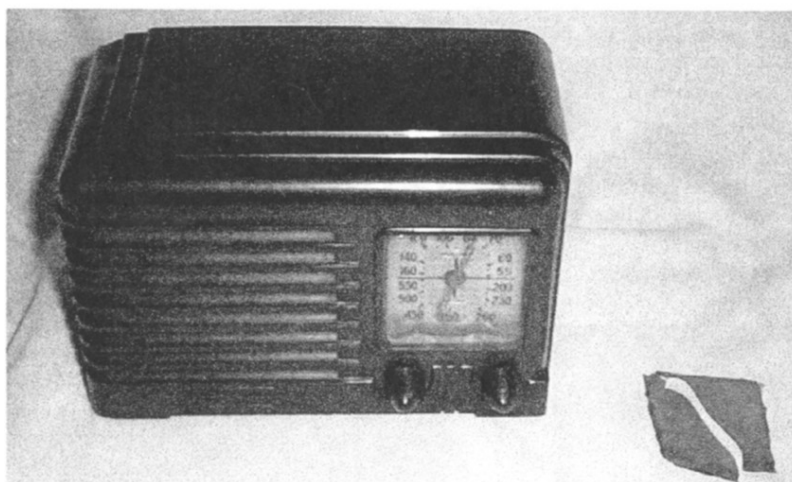
The fifth step is to cut the plastic to the approximate size needed. Make sure it is bigger than the opening to allow for the radius in the bend of the plastic and to allow for the mounting tabs. Obviously, it is best to have a flat piece of plastic to begin with so that you don't have to heat the plastic up to get it flat. I was able to cut the cotton swab package, pictured above, down further so that I didn't have any bends in it.

The sixth step is to place the plastic over the hole in the wood and place the wood window over the plastic. Using a torch, heat up the exposed edges of the plastic and gently push down on the wood window until the top of the wood window is flush with the paneling. Using the torch, heat up the plastic that is protruding up through the wood and bend the edges over so that they are flush with the paneling. These are your mounting tabs. Remove the plastic and check it for fit. Trim the mounting edges, if necessary, and remount it in the radio. That's all there is to it!

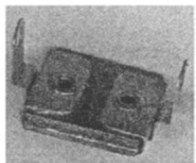




Philco TH4 with the replacement window.



Fada 450 with a replacement window with the broken, shrunk and yellowed original window next to it.



What is it? The answer is elsewhere in the Bulletin.

KOKOMO-IHRS-AWA May 2-3, 2003 Meet

I found the Johanning Civic Center and excellent place for this meet. There was plenty of room and it was 100% inside, so it didn't matter what the weather was like, although we did have good weather. We had two seminars. I gave one on AM receiver alignment and Joyce Hodges of Kokomo gave one on poetry and hats, which the women really loved. In appreciation for her presentation, Shirley Gross presented Joyce with a Book of Poems and an honorarium. The attendance was good, there were lots of radios and the food was good. What else could you ask for?

My thanks to Peter Yanczer for the pictures and Jim Thomas for the contest results. I provided pictures of the contest radios

Contest Results

Category 1 Indiana Made Radio

1 st	L. Dwight Farringer	Farnsworth D-55
2 nd	Michael Feldt	1936 Arvin 61M Tombstone

Category 2 Amateur Radio Equipment

1 st	David, Julia, Mike Burt	Learning Wireless with Omnigraphs
2 nd	Paul Gregg	National 5RR Receiver with 5886 P.S. and Coil Set

Category 3 Metal Cased Radio

1 st	Jack LaVelle	A-K Radio, Stand and Speaker
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Category 4 Green Radio

1 st	Fred Prohl	Eveready Set
2 nd	Dr. Ed Taylor	Jensen Boy's Radio Display

Category 5 Tubes

1 st	Jack LaVelle	DeForest Audion
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Category 6 Open-Radio Related

Tie	Steve Ewbank	1926 Steinite AC Radio /Display
Tie	Bob Sands	DeForest D-12 Display

FOUNDERS AWARD BEST OF SHOW

	Steve Ewbank	1926 Steinite AC Radio /Display
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Shirley Gross, Maryln Gregg and Edna Yanczer help make the meet go smoothly by taking care of the registration table.

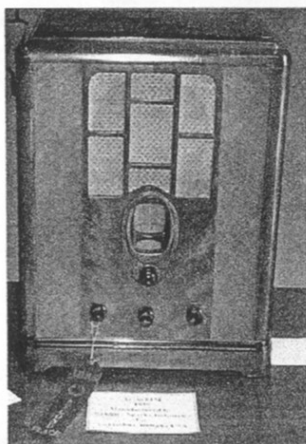
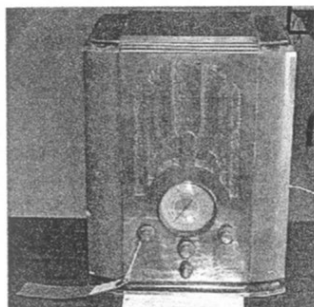
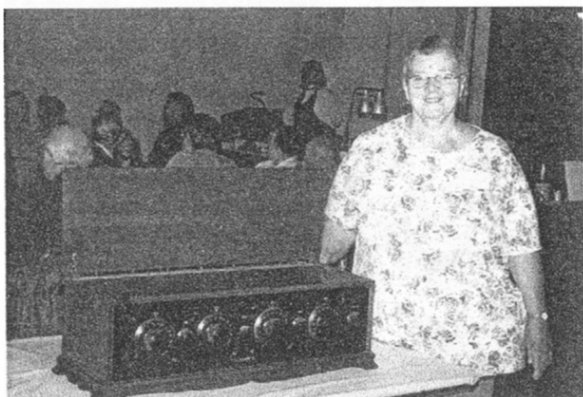


Joyce Hodges who gave the wonderful presentation on poetry and hats.



Lunch was good and well attended.

Janet LaVelle with
the radio she won in
the drawing.



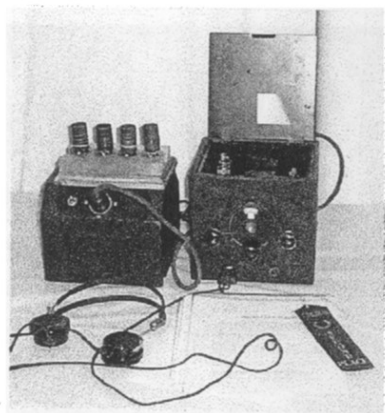
Category 1 Indiana Made Radio

1st L. Dwight Farringer Farnsworth D-55 2nd Michael Feldt 1936 Arvin 61M

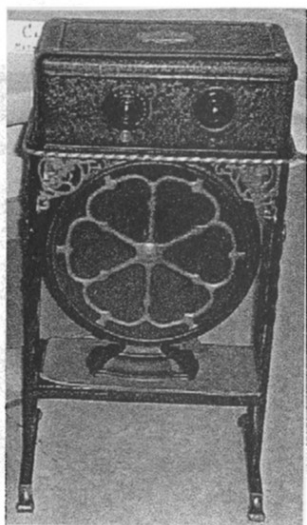


Category 2 Amateur Radio Equipment

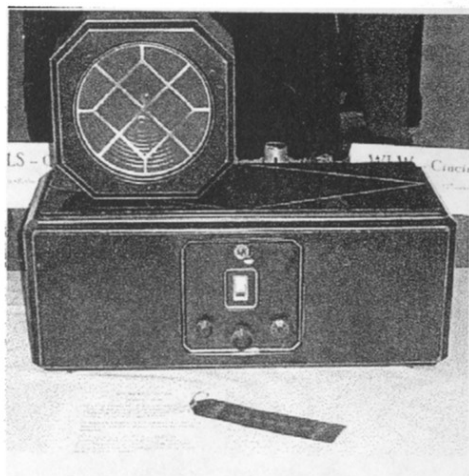
1st David, Julia, Mike Burt Learning Wireless with Omnigraphs



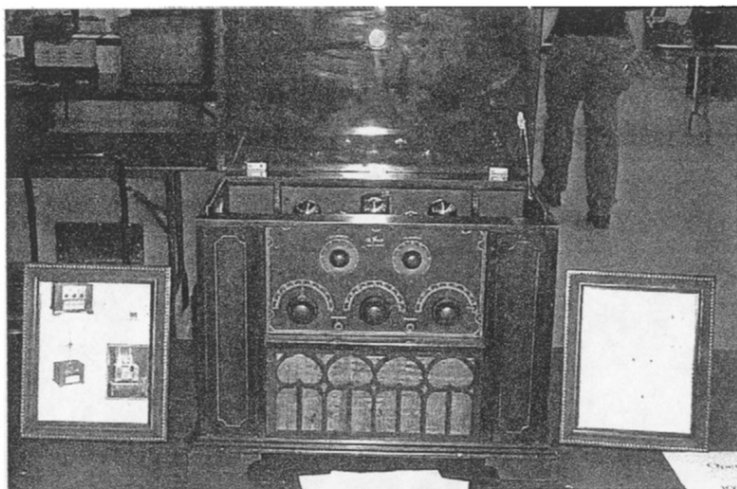
Category 2 Amateur Radio Equipment
2nd Paul Gregg National 5RR Receiver



Category 3 Metal Cased Radio
1st Jack LaVelle A-K Radio



Category 4 Green Radio
1st Fred Prohl Eveready Set 2nd Dr. Ed Taylor Jensen Boy's Radio Display



Category 6 Open-Radio Related

Tie Bob Sands
Tie Steve Ewbank

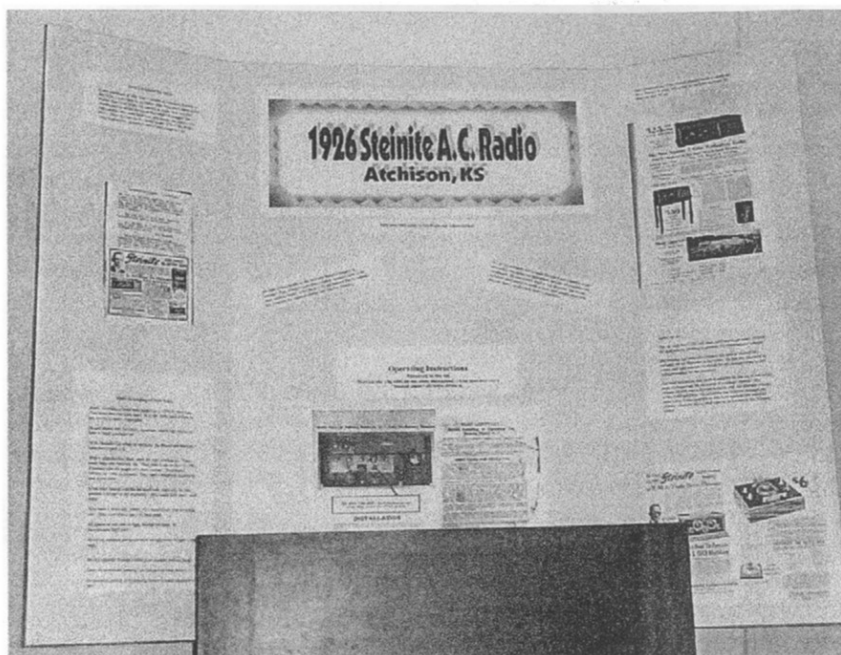
DeForest D-12 Display
1926 Steinite AC Radio /Display



FOUNDERS AWARD BEST OF SHOW

Steve Ewbank

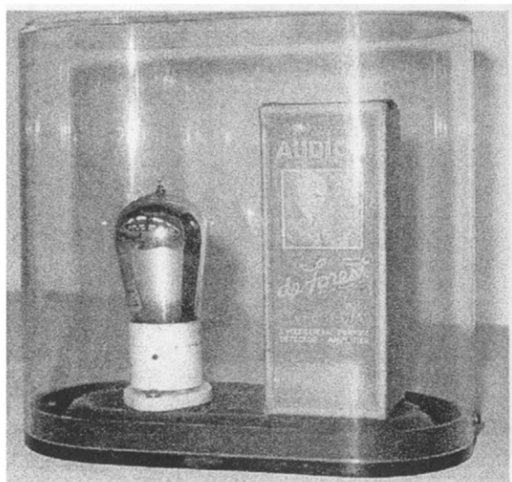
1926 Steinite AC Radio /Display



FOUNDERS AWARD BEST OF SHOW

Steve Ewbank

1926 Steinite AC Radio /Display



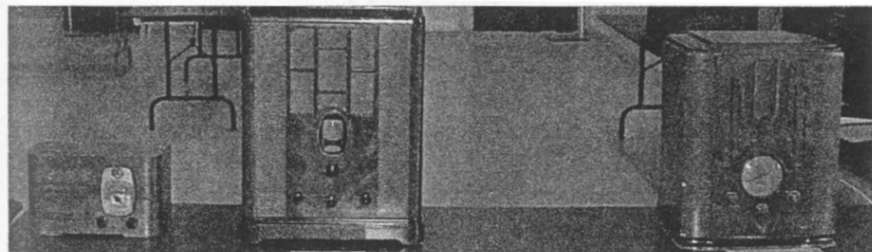
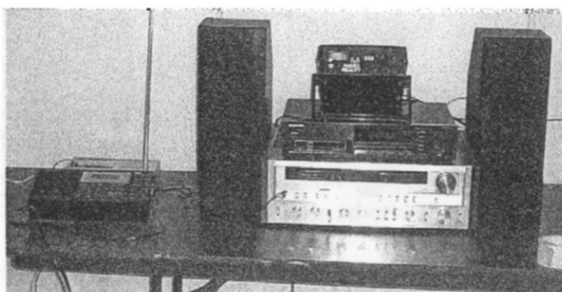
Category 5 Tubes

1st

Jack LaVelle
DeForest Audion

OPERATING RADIO DISPLAY

At several of our meets, we have given the opportunity for radio collectors to display their radios and let others see and hear how these radios work. Mike Feldt has done a great job in setting up an in house transmitter that allows any radio to pick up at least his station reliably, regardless of the building the meet is held in. Mike's transmitter setup is pictured below. Thanks Mike!



Three excellent operating radios you could listen to.

Left: Ed Dupart's Detrola 212

Middle: Michael Feldt's 1936 Arvin 61M

Right: L. Dwight Farringer's Farnsworth D-55



A partial view of the swap area

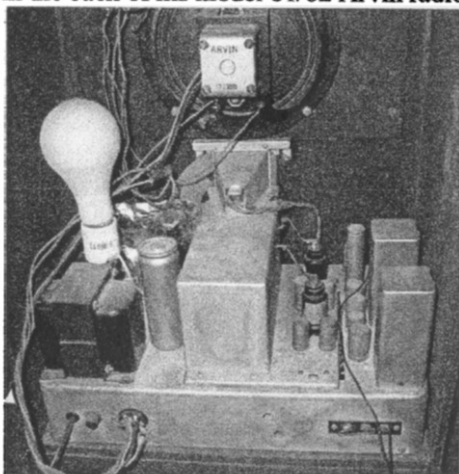


A sampling of radios to be seen at the Kokomo meet.

Why the Light Bulb?

Fred Prohl

Several people asked me, when viewing the back of Michael Feldt's operating Arvin radio, "why the light bulb?" As the picture shows, Mike has a light bulb by the transformer in the back of his model 61/62 Arvin radio.



The radio was set up as part of an operating radio demonstration at the recent IHRS Spring Meet. My response to the question was that the bulb limits the current and provides some protection against a "vintage radio tragedy." With the lamp in series with the power transformer's primary, about 10 volts of the 120 volts is dropped across the lamp, allowing the radio to operate at 110 volts

ac – a little bit easier on the aging parts. Michael replied similarly to the same question adding that the bulb also acts as a safety device in case of a power supply circuit short. If the radio goes bad and overloads the supply line, the light bulb handles the additional current demand and drops the line voltage, lighting the bulb and in turn reduces the voltage supplied to the radio. Michael likes to operate his AC sets regularly. With the light bulb in series with the transformer primary he has protection from a smoking, overheated power supply – saving the power transformer, the radio, and the house.

My first experience with the current limiting light bulb was in the 1960's when I questioned my future father-in-law "Why the bulb?" He used the supply line series lamp on his AK 40, his source of the morning news, as a safety indicator. Like Mike, his 150 watt lamp was hard wired in the line cord. He knew he had a problem if the lamp was bright while attempting to operate the radio. (The radio is now in my collection, and still works.)

My preference is to series wire a receptacle in a lamp fixture – allowing me to move the lamp to a different radio or to use the circuit to test an unknown condition radio.

The series light bulb is commonly used by collectors to slowly "bring up" a newly acquired vintage radio. Cooking the radio with a low wattage lamp in series with the supply line "dries" the circuitry (reducing the possibility of low resistance shorts due to moisture.) A series lamp lit at full wattage also tells the operator that there is a low resistance load (a short) in the radio's circuit. A low lamp wattage allows a lesser voltage drop across the radio. The following table of lamp wattage and radio volts will give you a ball part picture of what to expect from a series wired lamp. All test bulbs were tungsten filament lamps. The test radio, an Arvin 61, requires .400 ma of current at 120VAC.

Series lamp wattage	Volts applied to Radio
25 watts	49 Vac
40	62
60	78
75	86
100	92
150	102
200	113

Editor's note: I used the light bulb trick when working on solid state TV's and stereos when there was a short. This enabled me to measure voltages in the circuit, albeit lower, and trace down the short. After replacing shorted transistors, I would keep the light bulb in the circuit to make sure the short was gone. The unit would work on the lower voltage, not as well, but good enough to tell me it was fixed. I used a three way bulb to give me a variety of resistances.

RADIOADS

These ads are free to IHRS members. Please limit them to 100 words. Unless we are advised otherwise, we will run ads for two issues. The exception would be where services, etc. are being listed. Please send your ads to the editor at the address shown on page 2. NOTE: I removed a couple of old ads in this issue. If you want the ad put back in, let me know.

I'm also offering a postage size picture ad service. It's not guaranteed, but if space permits, I will put it with your ad. See the example I put at the end of the ads.

Wanted: R.F. choke, Zenith part 20-135, for Zenith chassis 1204, as shown in Rider 8—41. Richard Ender, 806 Lee St., Milan, MI 48160. (734) 439-2545

For Sale: Now Available: A replacement for the UV99, our V999R replaces your UV99, our V999 operates the filament on 1.5 VDC. Both use a 5676 proximity fuse, subminiature tube. Our price: \$15.00 plus first class shipping. James Fred, 5355 S. 275W, Cutler, IN, 46920, phone (765) 268-2214.

For Sale/Trade: See our new website for beautifully restored radios. Choose from deco tabletop models to gorgeous consoles. Always open to reasonable offers. Check us out at: www.tubularradio.com Actively collecting Zenith and other high-end 30's wooden sets. Bob Snively, Richmond, Indiana
Phone; (765) 935-3746 E-mail; totallytubular@aol.com

For Sale: Philips Radio tube books. I am currently reducing my stocks of my book "Illustrated History of Philips Radio Valves to 1935" and am offering signed copies to fellow IHRS members for \$10 cash including air mail postage. Please reply to Fin Stewart, "Cockerdale", 380 Bulga Rd, Wingham, N.S.W. 2429, Australia.. email address cockerdale@bigpond.com

Wanted: Any information about Marconi No. 3574 receiver (made by "MWTC, Ltd. London") using carborundum, valve, and perikon detectors. Needed for restoration project. George B. Clemans, 851 West Wooster St., Bowling Green, OH 43402. (419) 352-7198, clemans@bgnet.bgsu.edu.

FOR SALE: Reproduction Philco cathedral cabinet parts and reproduction cabinets for model 20, 21,70, 90. Grandfather clock finials: Philco 570, GE H-91, Crosley 124. Philco Colonial Clock top trim and finials. Rider's Radio Index, 1 through 23 -\$20.00 ppd. Books, SASE for list. All plus shipping. Philco cabinets, front panels, see page 22 in Volume 29, #4 the Winter edition. Other parts, inquire. Call or e-mail for details. Note new phone # and address. Dick Oliver c/o Antique Radio Service, 1725 Juniper Place, #3 10, Goshen IN 46526. New phone # (574) 537-3747, e-mail dolivears@aol.com

FOR SALE: Photocopies: Hallicrafters 8-22, Zenith 1000-1, Radiola III, 18, 60, 100A, 103, Majestic 52, and other radio, tube, and Test Equipment manuals. Also some Novelty radios. LSASE for list. N.I.B. Western Electric 421A-\$55 postpaid. **WANTED:** Speaker/output xfmr. assembly for RCA 5T1. Herman Gross, 1705 Gordon Dr. Kokomo, IN 46902. (765) 459-8308, e-mail = w9itt@mindspring.com

Wanted: Philco 512 Mandarin Red radio w/212 Red speaker or 514 Nile Green radio with 214 Green speaker or 513 Labrador Grey metal radio with 213 matching grey speaker. I prefer the Red model.

Bob O'Friel, 7631 Cape Cod Circle, Indianapolis, IN 46250-1844 Phone, (317) 849.4028

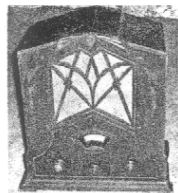
Interested in TV history? Want to see how it started? Try this Web site. You'll be amazed how far we've come.

<http://pyanczer.home.mindspring.com/Tour> Note: all lower case except the upper case "T" in tour.

Pete Yanczer, 635 Bricken Place, Warson Woods, MO 63122-1613

FOR SALE: Federal Book: Limited supply again available. 64 page booklet describes Federal Tel. & Tel. Radio-from the beginning in 1921 to the end in 1929. Over 60 illustrations including pictures of early Federal RF and audio amplifiers as well as all early radios. Many federal parts are pictured and described. The article and speech by Dick Scramberger, the Federal expert, are included. All Federal models are listed with the year and month introduced, cost new, and description. The Federal Broadcast station, WGR first in Buffalo is included. There are two pages of references for more Federal information. This booklet contains more Federal information than exists in any other single spot. Good Quality printing. Please send \$7.95 (Including S&H) to Larry Babcock, 8095 Centre Lane, East Amherst, N.Y. 14051

Wanted: RCA 8T table model with a tuning eye. Can be rough.



FOR TRADE: Majestic model 290 with built in squelch. It has that deep mellow sound with the original finish. I'm looking for a Detrola cathedral model 4D with the airplane dial that does not have the tuning knob in the middle of the dial. This is a cheap 4 tube TRF radio with the low band short-wave. It can be a Detrola with an independent name on it and the cabinet need not be perfect.

Edward Dupart, Editor 1441 N. Church St.-Cadiz, New Castle, Indiana 47362-9172

(765) 533-6272 e-mail: edupart3@hrtc.net

Wanted: Wood cabinet for Atwater Kent Model 33 receiver.
Ray Andrejasich (317) 846-6977.

Wanted: MYSTERY SCOPE Any information will be appreciated on a 5-inch 'scope made by Television Equipment Corp, of NYC, model TEC601. This unit is heavy and very well constructed. It appears to be of early 50's vintage (octals and miniatures) and was intended for TV servicing. This is a candidate for a possible fun restoration project.

Harold E. (Hal) Hunt 1209 Canterbury Dr Decatur In 46733 260-724-9700
(leave message) hehunt@adamswells.com

Wanted: Whitley Electronics Murasone Amplifier, built in Columbia City Indiana in the late 50's early 60's. Also need a large potentiometer (2 1/2 inch diam) used for filament control in early battery receivers (1922.) Knob (1 3/8 inch diam) and brass shaft (1/2 inch diam). The knob is same as a trimmer control on a Westinghouse RADA.

Fred Prohl (812) 988-1761 email fprohl@att.net

ALIGNING AM RECEIVERS

By Edward Dupart

May 3, 2003

The following is the context of the seminar I gave at the May meet in Kokomo. The assumption for the following procedure is that the receiver is functioning, but just needs to have the alignment touched up. What is contained is an introduction and is by no means complete. If you have any questions on the following procedures, feel free to call me, as long it's before 9:00 PM EST.

Tools/Equipment needed:

1. Insulated alignment tools:
 - a. Screwdriver-flat/negative
 - b. 1/4" nut-driver-mainly for Philcos
2. RF signal generator
3. AC meter(analog) /VTVM(analog) and/or a good ear.
4. Isolation transformer

Safety tips:

1. The isolation transformer insures no hot chassis due to the inherent design of AC/DC sets or leaky/faulty AC line filter capacitors in AC operated sets.
2. With or without an isolation transformer, the alignment screws in many IF transformers are hot or have B+ voltage potentials at the screw itself. The insulated alignment screw driver helps prevent:
 - a. shock hazard

- b. accidentally shorting the B+ to ground between the screw and the IF can housing/chassis
- c. reduces hand/body capacity effects

General operating procedures:

1. Keep the output of the signal generator to a minimum, to the point where you just hear the signal. If you are using a station, make sure it is a very weak station. A weak RF signal and/or a weak station makes the AVC somewhat ineffective and in most cases makes the shorting of the AVC line unnecessary. For absolute accuracy, shorting out the AVC line is recommended, but for this seminar, I'm trying to show you how to do it with a minimum of tools and assuming you do not have a schematic or have schematics floating around in your head.
2. The AC meter(analog) /VTVM(analog) is connected to the speaker and is used to measure the output level of the receiver. Using a meter makes it possible to align a receiver in a noisy environment or where you don't want to drive a fellow technician sitting next to you crazy. I use analog meters because the needle makes it easy to see slight variations in the audio signal. It is my opinion, that digital meter's makes this process more difficult. If you have a very good ear and can hear slight variations in sound then you will be able to obtain very good results without a meter.

TRF's

1. Tune to a weak signal around 1400 KHz.
2. If you need to use the meter, connect it to the speaker.
3. Turn the volume up so you can adequately hear it. If the radio oscillates when you turn the volume up, then turn it down where it quits oscillating. This is a common problem with the cheap 4 tube TRF's and is a design flaw.
4. Adjust detector trimmer first for maximum volume and/or meter reading.
5. Next, adjust RF stage just preceding the detector for maximum volume and/or meter reading.
6. If there are additional RF stages, keep adjusting the stages going towards the antenna for maximum volume and/or meter reading.
7. Go back and retouch up all the trimmers.
8. You will notice slots along the edge of the outer rotor plates on most variable capacitors and this will allow you to adjust the capacity of the capacitor over the entire tuning range. So, if the sensitivity is poor at the low end of the band, try bending the outer plates of the variable capacitor where the rotor meets the stator. Be very careful that you don't bend the plates too much, because you don't want to break the plate or have it short out to the adjacent plate. This will have to be done for each stage for maximum sensitivity. Use a small wood or plastic dowel rod with a slot in the end of it for bending the plates.
9. Remember to keep the signal output of the generator as low as possible or use a very weak station.

Superhets

1. Determine the IF (intermediate frequency) frequency. Can be on the IF can or any paper work in or on the radio.
2. Connect a meter to the speaker.
3. Find a blank spot on the dial.
4. Set the generator at the specified IF frequency.
5. Place the output lead of the generator close to the antenna and adjust the output of the generator to where a tone is heard but is weak.
6. Adjust the IF can closest to the second detector tube first. Adjust the trimmers or slugs for maximum volume or meter indication. If necessary, readjust the output of the generator for a weak output.
7. Proceed to the IF can closest to the mixer/converter tube, assuming the radio has only one IF stage. Adjust the trimmers or slugs for maximum volume or meter indication. If necessary, readjust the output of the generator for a weak output.
8. Check the tracking of the oscillator by seeing if radio stations are accurately read on the dial. If not, find a station around 1400 KHz and adjust oscillator trimmer until that station comes in at the correct frequency on the dial. A known station or RF generator can be used for this step.
9. If the radio has a padder capacitor or adjustable oscillator coil, then check the tracking around 600 KHz. A known station or RF generator can be used for this step.
10. After the tracking is set, find a weak station around 1400 KHz and adjust the antenna trimmer for maximum volume. A known station or RF generator can be used for this step.
11. The outer plates of the variable capacitor can be bent at the lower frequencies to fine tune the alignment, but it's been my experience that this is unnecessary in superhets, due to their increased sensitivity.
12. If the radio has an RF stage, then adjust the trimmer for maximum volume at around 1400 KHz on a weak station or using the RF signal generator set at a low output.

radioantiques.com – An IHRS Member Web Site

IHRS member Bob Piekarz has provided restoration supplies to vintage Radio (and Juke Box) collectors since 1989. Bob sets up regularly at our meets; supplied with replacement capacitors, line cord, and pilot lamps for vintage radio repair.

Visit his web site at radioantiques.com if you are in need of repair supplies. Also available on his site are links to Radio repair services.

At your next opportunity check out Bob's Antique Radios at radioantiques.com.

Fred Prohl, site manager for indianahistoricalradio.org