



The Oscillator



"All the Electrons that are Fit to Flow . . ."

THE OFFICIAL NEWSLETTER OF THE DVHRC

SPRING 2019

WIN THIS RADIO!



Above: DVHRC offers you the most desirable Raffle Radio yet- the Bendix 526C Catalin.

Kutztown XL Approaching

DVHRC, in commemoration of the K-Town 40 Special Anniversary Radio Show, is proud to offer you a chance (or many chances) to win this beautiful catalin set shown above. Vote early and often on May 10-11, and we hope you stay around for the Saturday afternoon drawing to be able to claim this beauty! We can mail safely if needed.

The Bendix model 526C was one of 16 new models announced before an audience of 200 distributors at a showing held in New York City during October of 1945. The line marked the first incursion of Bendix Aviation Corporation's Radio Division into domestic radio production. During WWII, they had been a manufacturer of military avionics, but upon the conclusion of hostilities

they turned to home markets to help keep their large and skilled workforce busy. With its elegant lines and bold, contrasting tones of ebony and marbled green, the 526C sold well in 1946 and is a staunch favorite of collectors today. According to the November '45 issue of Radio Retailing (p.167), the line was based upon 7 chassis types built into 16 different cabinets. The 526C was their only catalin set, with its styling attributed to James Franklin Glover in design patent #146,907.

June 10, 1947.

J. F. GLOVER

Des. 146,907

RADIO CABINET OR THE LIKE
Filed Feb. 6, 1946

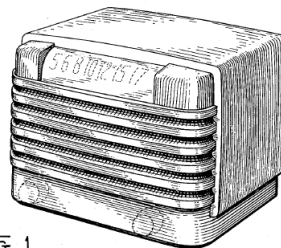


FIG. 1

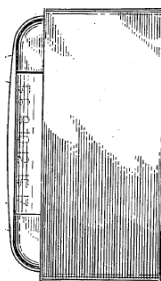


FIG. 2

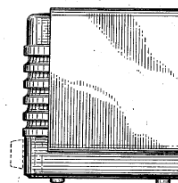


FIG. 3

J. FRANKLIN GLOVER

by *Robert T. Hillman*
Attorney

Above: 146,907 What is claimed is: The ornamental design for a radio cabinet or the like, as shown and described. J. FRANKLIN GLOVER.

For their 1947 line, Bendix continued the theme of the 526C with their models 114 and 115, constructed using polystyrene plastic.

Now, regarding *Kutztown XL at Renninger's*, the schedule will remain the same with a Friday night auction at 6PM, including consigned pieces accepted in the white room beginning 3:30. You may view other scheduled events via the link on DVHRC.org website. There are additional rewards to be had for staying set up later on Saturday with vendor raffles from noon until 1PM with cash prizes ranging from \$25 - \$100.



DVHRC will be presenting commemorative gifts for those who procured spaces. As we try to build on our successes, in the end it is *you*, the participants and volunteers, that make this event shine. The value of friendships and fellowship of brothers and sisters in the hobby over the years is something money can't buy!



Delaware Valley Historic Radio Club
 PO Box 5053
 New Britain, PA 18901
www.dvhrc.com

The *Oscillator* is the quarterly newsletter of the Delaware Valley Historic Radio Club.

Articles on radio and television history or collecting can be submitted by the 25th of month prior to quarterly issue dates of April, July, October and January to the editor at gdottor@yahoo.com.

Personal views, opinions and technical advice do not necessarily reflect those of members, officers or Board of Directors of the DVHRC, nor is the DVHRC responsible for any buying or selling transactions.

Dues are \$20 per year and can be paid at a meeting or mailed to the above address. Meetings held 2nd Tuesday of each month at Telford Community Center.

DVHRC Board of Directors

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Tubes Needed for DVHRC Kutztown Inventory

Dave Dean has some types of tubes in very short supply. During your spring cleaning, be generous and donate some of your unneeded stock by placing into DVHRC's tube program.

Following are a list of the tubes the club is looking for.



- Any and all Globe tubes,
- Any high end audio tubes ,
- Any "unusual" transmitting tubes.

- | | |
|-------|--------|
| 5751 | 10 |
| 5842 | 12A7 |
| 6AQ8 | 2A3 |
| 6AZ8 | 45 |
| 6BD8 | 6Q7G |
| 6DC8 | 6U7G |
| 6BK8 | 85 |
| 396A | 12AX7 |
| 417A | 83 |
| 6072A | 6SN7GT |
| EL37 | 1L6 |
| 6A3 | 50A1 |
| 6F5 | 6L6GC |
| 6F6 | 6L6GAY |
| 6L6GA | 6L6GB |



Above and Below: NMIIH, the National Museum of Industrial History in Bethlehem, PA is currently showing their exhibit "Don't Touch that Dial" commemorating 100 years of radio, since the birth of RCA. Club members Dan Schwartzman and Jarret Brown have loaned parts of their collections which appear in these pictures. You may view this exhibit through November 3rd so bring a friend and have some fun in beautiful south Bethlehem. SEE CALENDAR page ___

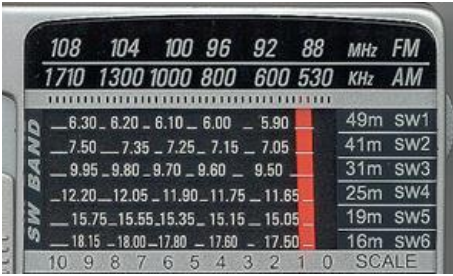


Meeting of March 12, 2019

The theme was *Pocket radios and miniatures.*

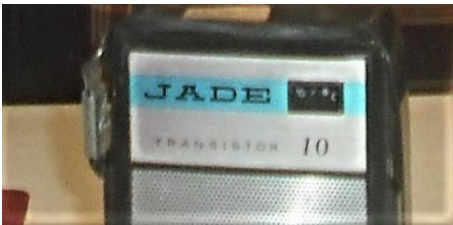


Above & Below: Dave Dean shows his Grundig 100 PE with analog tuning & lots of bandspread on SW bands (next page). This unit from the early 2000's works well and Dave has used in his office. Late Grundig units were made by Eton.



Above: Pete Grave's rare Air Chief 9 transistor 3-bander with AM and two SW bands but no FM. This unusual set may have been purchased at a Firestone store who branded as Air Chief.

Below: Pete's pocket sized entry was the Jade J101 10 transistor unit still with its \$2 price tag. A search disclosed a current NOS unit but in turquoise priced at \$25- now that's appreciation!



<https://www.ebay.com/itm/Vintage-Jade-J-101-Transistor-Radio-NOS-TurquoiseBlue/133015737884?hash=item1ef85b161c:g:zLgAAOSw6w1cqjg>



Above & Below: Dave Abramson shows his Seiko T001-5019 wristwatch/pocket TV from 1983. Dave got it to work recently on channel 3 with his analog transmitter. Following is more background on this interesting & collectible item.



The Guinness Book of Records showed, in its 1984 edition, the SEIKO TV-Watch as the "smallest TV set in the world". This is an interesting theory, since from what you can see here actually looks like the smallest TV by far. Unfortunately, a vital detail is missing; the necessary TV receiver is inside a box about the size of a Walkman.

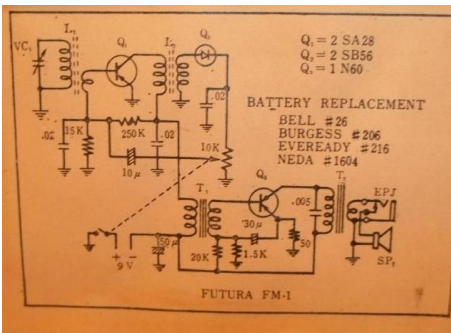


The box (model no. TR02-01) is connected to the watch via the cable shown on the photograph. The idea was to put the cable through the sleeve of your jacket and hide the receiver in the pocket. Then just put on the earphone (the cable also serves as an antenna) and you can watch TV inconspicuously almost anywhere. Details were hard to recognize because of the slow and low contrast liquid crystal display. Technical details are quickly listed: 1.2" display w/o background lighting ("blue/white", 31,920 pixels, 10 shades of grey, 16.8 * 25.2mm), 5 hours running time on one set of batteries, external tuner for VHF & UHF (channels 2 to 83!) and FM stereo radio reception. Regardless of its "factual impracticality" the SEIKO TV-Watch is the holy grail of every pocket TV collection. Its fascination is unbeaten. The TV-Watch was seen on the big screen several times. In 1983, Roger Moore wore a TV-Watch in Octopussy instead of the usual Rolex Submariner. In 1987, you could see one on Tom Hanks' wrist in the comedy Dragnet. Naturally in both movies it came without the earphone (or antenna respectively) and in Octopussy it even had a color screen. Partly because it was seen in a Bond movie, the prices for the TV-Watch rocketed. Well-kept models in original packaging are rarely sold for less than \$500. Unused copies may change owners for upwards of \$1,000. The retail price in the US was \$495.

<https://museum.ssysrc.com/artifact/mobile/900/>



Above: Wilbur Gilroy shows L-R a handsome Global 6 transistor model in light blue, Futura FM-1, 2 transistor boy's radio, and a Titan in chrome and red plastic. The Titan when opened showed Toshiba parts within. **Below:** Regarding the curiously named Futura FM-1, here are the guts and schematic for this minimalist "boy's set".



Below: Mark Thierbach displays the miniature pocket portables, all with at least 6 transistors. This one is a Channel Master and will fit in a very small pocket.



Above: Here again is the Channel Master along with some other distinctive miniatures made by Standard marketed as the Micronic Ruby which for its 3 inch square case included 8 transistors. **Below:** Standards were marketed in elegance coming in a jewelry styled case. Standard made a few different Micronic Ruby models in the 1960s. They are all quite collectible and they were then powered by now-outlawed mercury oxide batteries but you can get modern equivalents from suppliers such as 24 Hour Batteries.



Below: We see Mark's complete lineup of miniature pocket radios including some known and seldom seen brands such as Amertone.



Below: Dave Snellman showed a Zenith Royal 20 including case and receipt from NYC area May's totaling \$10.19 purchased Aug. 12, 1966.

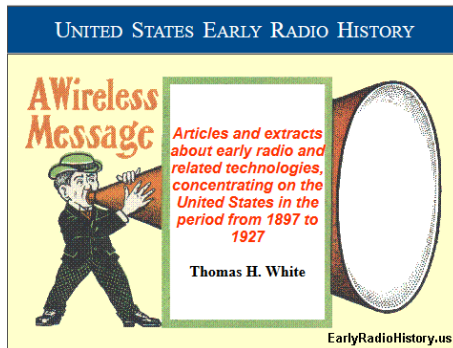


Above and Below: Jarret Brown showed a CC Crane Pocket radio made by CC Crane. Jarret uses this one the most of all his radios listening at night or taking outside. Features sleep timer (no auto shut-off), clock and alarm and removable belt clip. Five memory pages for AM/FM, 50 memories total. 1, 9 or 10 KHz selectable tuning steps. Selectable Narrow or Wide AM filter. LCD shut off to reduce radio noise. NOAA Weather Radio with Alert (disables AM/FM radio while activated). Rubber protected sides. Runs on (2) "AA" batteries. About 75 hours of play with earphones, 25 hours using built-in speaker. Excellent selectivity with maximum sensitivity.



Following is a great site to seek out some radio history. You may click on this link to find organized chapters on the development of radio technology and especially the business of radio. Each article has sub-links within; one such as appears below, fun one which is excerpted below.

<https://earlyradiohistory.us/index.html>



[Radio News, January, 1925, page 1165:](#)

Radio vs. Wireless

By EDWARD C. HUBERT

"I see that you have installed a wireless set," I said to a well-educated neighbor of mine.

"No," he answered, "it's a radio." I concealed the utter disgust I felt for this man and his stupidity, and hurried home to write about the "difference" between radio and wireless. There ain't none such, that's all. Wireless or radio, whichever you wish to call it, has put more people in the bug-house and living room than any other mechanical cussing-machine.

But radio and wireless-- there must be a big difference; they're spelled a little different. I hate to disappoint and disillusion some of you who have counted so much on a "big difference." But just brace yourselves and prepare for the

shock: THERE IS NO DIFFERENCE BETWEEN RADIO AND WIRELESS EXCEPT THE SPELLING.

Wireless does not mean sparks, noise, lots of switches and neighborhood feuds. Wireless means communication without the use of wires other than the aerial; the ether and ground taking the place of wires. Radio means exactly the same thing; it is the same process. Now communication by wireless waves may consist of an SOS message from a ship at sea or the communication may be simply the reception of a wheezing soprano. It does not become something different in either spelling or meaning just because you can understand one and can't the other. When broadcasting was being experimented with, back in 1915, they called these experiments "wireless telephone." But today the same thing is being done only on a wholesale basis, and for no reason at all the name has been changed to "radio." But radio is not a new word and its real meaning isn't broadcasting of music or speeches. Radio is simply the process of communication by either voice or telegraphic code by using the ether and ground in place of direct wires. Thus, don't say you "have a radio" in your house. What you mean is that you have a radio receiver or a wireless receiver in your home. If you think that there's any difference between a radio receiver and a wireless receiver then how do you explain hearing code signals on your so-called "radio"? No, there's no difference; the same circuits

that the ships and amateurs use for reception of radio telegraph or wireless telegraph signals will be found in a so-called "radio." The famous "Reinartz Circuit" was originally made for the reception of code signals, not soprano broadcasts.

So get it straight now, that the thing you have in the living room that makes noises like the victrola is not "a radio," but a "radio receiver," or "wireless receiver"; the two terms are synonymous. The code signals which sometimes justly drown out a political speech should not be called "wireless," for that is too broad a term. Call it "wireless telegraph" or "radio telegraph." The jazz band music you hear is NOT "radio." It is "radio telephone" or "wireless telephone," music. If this is the radio age let us learn the correct classification of the various branches, instead of making one or two words put on various disguises for the many parts they are supposed to play.

Two Nations, Over the Air **Portrait of a rivalry in radio waves**

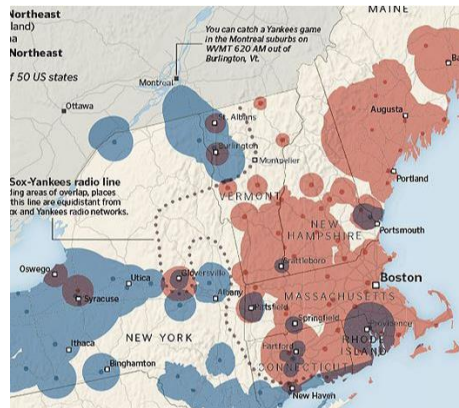
By Tim Wallace as reported by Boston Globe, 2011

It's a summer tradition that feels almost as old as summer itself: to hit the road with the car radio tuned to the Red Sox game. As you leave the city and the game slowly crackles out of range, you scan the radio dial to find another station carrying the game, and another - until suddenly the Sox are off the dial and the only game on the radio is something else: a Yankees game. There were no signs, no other way to tell that you

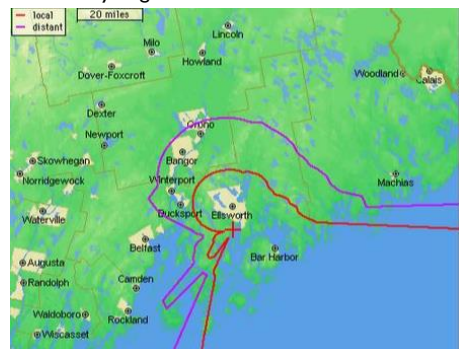
just crossed a border. But you have, as surely as if you'd just sped recklessly through passport control. You are in foreign territory now. Where does the border lie? How does the Northeast - on the radio, at least - sort itself into Yankees territory and Red Sox Nation? It changes a bit each year, as each ball club has a slightly different constellation of network affiliates scattered across the Northeast. To find out the constellations for 2011, we called both teams to draw a portrait of rival nations in the shape of their radio coverage. In all, the Sox have 67 stations in the Northeast, and the Yankees have 36. (Why the disparity? The Red Sox have far more short-range FM stations, and the density of New York means the Yankees can cover their fan base with fewer stations.) Additional stations broadcast games for these teams in Colorado, Florida, Nevada, New Mexico, North Carolina, and Wyoming. Though not all games are broadcast on all stations, each station is treated equally on the map, with broadcast areas provided by the Federal Communications Commission. The dotted line tracks places that are equidistant from Red Sox and Yankees stations.

Sorted into red and blue, the radio map is a kind of cultural document. Where do Red Sox fans end and Yankees fans begin? And which regions are hopelessly conflicted? It will come as no surprise that the radio waves in Massachusetts are mostly ruled by the Red Sox and those in New York by the

Yankees. But who would have guessed that Yarmouth, Nova Scotia, Canada, is Sox territory, while Montreal is Yankee blue? Approach any Red Sox fan on the street - what do you think their reaction would be to seeing that Yankees games can be picked up in every state in New England? There also seems to be a line of conflicted cities that can be drawn between Providence, R.I., and Oswego, N.Y. One must wonder what the scene was like in the sports bars of these towns during the 2003 and 2004 postseasons.



Above: This is a somewhat dated article but the teams' "Nations" stay the same with the markets still represented by AM radio. The article clearly "skips" after-dark skywave propagation and the 50 kw WTIC, Hartford (Sox). Although DVHRC's membership geographical center is blanketed by Phillies broadcasts on radio, you need only venture into New Jersey to enter some other "dotted lines" with NY teams. **Below:** Daytime pattern (Radio Locator) shows salt water propagation of Maine's WDEA heard easily in Yarmouth, Nova Scotia, Canada. Take a listen to distant stations next time you go to the beach!



Conductivity of the surface affects the propagation of ground waves, with more conductive surfaces such as sea water providing better propagation. Increasing the conductivity in a surface results in less dissipation. Since the ground is not a perfect electrical conductor, ground waves are attenuated as they follow the earth's surface.

As for that border - except in a few spots, the dotted line on our map marks a kind of buffer zone, a radio no-man's land. Rather than live in conflict, perhaps, some people realize it's better not to take sides.

Tim Wallace is a cartographer based in Madison, Wis., and coauthor of the Bostonography blog. To view the radio map go to: http://www.boston.com/bostonglobe/ideas/articles/2011/07/10/two_nations_over_the_air/

Each spring, we list AM flagships for baseball. The Mets entered a 7 yr. contract with WCBS (Entercom) for 2019 and Yanks affiliates are shown below.

kHz	station	team
660	WFAN	YANKEES
670	WSCR	CUBS
700	WLW	REDS
720	WGN	WHITE SOX
880	WCBS	METS
1080	WTIC	RED SOX
1100	WTAM	INDIANS
1120	KMOX	CARDINALS
1140	WRVA	NATIONALS
1500	WFED	NATIONALS



Six tools you may not have, but could use on your bench

By Stan Saeger - DVHRC

Even if you are more experienced at rehabilitating vintage radios and electronics, here are some very useful tools you may have overlooked. Stan shares a list of his favorites.

We all have screwdrivers, pliers and soldering irons, but there are other tools that are handy when working on vintage electronics.

1. Screw and nut starters - For starting screws and nuts in hard to reach locations on the chassis. Once started, you can use a normal screwdriver or nut driver.

There are three varieties.

For standard slotted screws or bolts:



For phillips screws or bolts:



For nuts:



2. Heyco strain relief pliers - Heyco is the brand name of the plastic fittings used to fasten power cords to the chassis on more recent radios.



Installing using a normal pliers makes them look like your dog chewed it. Heyco pliers compress them properly for installation or removal.



3. Electronic Contact Cleaner - Used like a pencil, the fibre-glass tip removes dirt and grease from controls.



4. Welder's cleaning brushes - These come on a key ring with assorted sizes - perfect for cleaning tube sockets.



5. Solder Sucker - A vacuum device that removes solder from an existing connection. I suggest the Edsyn Soldapullt - it's large but also the most effective.



6. Burnishing Tool - A small, flexible file used to clean the contacts on switches.



Sources:

Screw and nut starters: search (www.mcmaster.com) for "screw starter".

Heyco strain relief pliers: search www.ebay.com for "strain relief pliers"

Electronic Contact Cleaner: search www.ebay.com for "fibreglass pencil brush"

Welder's cleaning brushes: search www.ebay.com for "welding tip cleaners"

Solder Sucker: search www.ebay.com for "edsyn soldapullt". (Note the unusual spelling.)

Burnishing Tool: search www.ebay.com for "burnishing tool"

2019 Monthly Themes

Here is a reminder of remaining themes for our Telford meetings. Non-members are welcome!

[May 14](#)- "Open Category" Super Show & Tell. Post Kutztown Discussion.

[Jun 11](#)- AM Transmitters & Transmitting Gear. Can range from FCC part 15 BCB units to something larger. Xmtr demonstrations encouraged!

[Jul 9](#)- Tailgate Auction. 7:00 PM

[Aug 13](#)- Phonographs.

[Sep 10](#)- Kutztown XLI Planning, Theme: Art Deco radio.

[Oct 8](#)- Repairing a Radio.

[Nov 12](#)- Decade- 1980's Radios.

[Dec 10](#)- X-mas Party at Stove N' Tap

Upcoming Regional Events

Following are some excellent programs and a reason to have multiple club memberships in our region's clubs! Paste links into your browser to load.



National Museum of Industrial History, Bethlehem, Pa. "100 Years of Radio" Exhibit Began Saturday February 9, 2019 running through Nov. 3, 2019. See special preview note below. The event coincides with the 100th anniversary of RCA. 100 Years of Radio will feature over 100 historic radios, components and ephemera. Visitors to this interactive exhibit will have a chance to listen to early broadcasts, see an Amateur

Radio operator's station, test their knowledge of Morse code, and experience modern day innovations in the industry.



Where: 602 E. Second St., Bethlehem, PA 18015. NMIH phone # is 610.694.6644. nmih.org

Hamfest-Warminster Amateur Radio Club (WARC) including EPA Section Convention Sunday, 05.05.19, 7am, vendors setup 6AM rain or shine.

Where: Bucks County Community College's Lower Bucks campus, 1304 Veterans Hwy (Rte. 413) Bristol, PA. See website for details: <http://www.k3dn.org/hamfest/>

Kutztown Radio Show XL (40)

Friday, 05.10.19 through Saturday, 05.11.19 opens 7AM on those days; **Special Anniversary show!** Vendor setup starts 12 noon Thursday. **No Early entry shoppers Thursday. Free parking and free admission for shoppers.** Where: Renningers Farmer's Market, 740 Noble St., Kutztown, PA 19530. Antique radios, parts, and related items. Audio and Ham welcome. Tables, electric available. Auction 6PM Fri. 05.10. Various vendor cash prizes! **Exhibitor reservation advised: Phone M-Th 570.385.0104; F-S 610.683.6848.** See links at: www.dvhrc.org to download circular or [facebook.com/renningerskutztown](https://www.facebook.com/renningerskutztown)

NJARC Repair Clinic Sat. May 18th 10AM to @4PM- check NJARC contacts below. Our Repair and Restoration Clinics are held several times a year. These are all-day events, conducted at different locations around the state, usually at our InfoAge headquarters in Wall Township.

Some are conducted as "members only" events, and some are open to the public. Specific information about upcoming workshops is posted on the home page of this website and is announced in our newsletter The Jersey Broadcaster. Members are encouraged to sign up to bring a restoration project for evaluation. Club members with expertise in different areas of radio restoration volunteer their time to serve as instructors and problem-solvers. **(Note: volunteers are requested to setup at 9 am.)** **Reservations required.** For those sessions open to the public: Please register ahead of time: email **Richard Lee**, president@njarc.org to reserve a one-hour time slot with an expert. The club will provide you with a comprehensive evaluation of your radio and recommendations regarding it's restoration and repair. Often, the problem is very simple -- so you might even leave with a working radio! **Where:** InfoAge Science History Learning Center and Museum, 2201 Marconi Road, Wall Township NJ 07719. <http://www.njarc.org/#calendar>.

RadioActivity 2019 Thursday, 06.27.19 4PM through Saturday, 06.29.19. *RadioActivity* will be held at the Sheraton College Park North Hotel in College Park, MD. Theme will be SHORT WAVE RADIO. Subcategories TBA. The Sheraton College Park North Hotel (formerly the Sheraton Washington North Hotel) is located off of Exit 29B (Rt. 212) of I-95 between Washington and Baltimore, at 4095 Powder Mill Road, Beltsville, Maryland, 20705. The hotel is on the SW corner of the interchange. See their website for more released in near the future: http://www.maarc.org/index.php?option=com_jevents&task=icalrepeat.detail&evid=123&Itemid=109&year=2019&month=06&day=27&title=june-2019-radioactivity-in-beltsville-md&uid=7e1d5bcc0e8fd924b654791a2a7dc2bd.



This is Gary Owens saying see all of you next time around! DVHRC signing off.