



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

September 2025

Volume 31 Issue 9



The *Jersey Broadcaster* is distributed to members of the New Jersey Antique Radio Club via email as a PDF file. Back issues of many of our newsletters are available on the club's website:

www.njarc.org/broadcaster/

Meeting Notice

Our September meeting will be held on Friday, 9/12. At the meeting, Dr. Joe Wilkes will present "Ham Radio Propagation." There will also be a "Grab and Go" event at the club's storage area in building 9036D at 5:00 PM.

Directions can be found on Google Maps at <https://bit.ly/4jZe8XI>. We plan to live stream the meeting on YouTube at youtube.com/user/NJARC.

Meeting Review

At our August meeting, NJARC member Dr. Jonathan Allen regaled us with some of the "Tricks of the Vintage Electronics Trade" that he has learned over a lifetime of working with electronics.

If you missed the meeting, you can watch a recording of the live webcast on the club's YouTube channel: <https://bit.ly/3yZ5yoR>.

Also, don't forget to take a look at our Summer Swapmeet as captured by the well-known YouTube personality *Radio Wild* otherwise known as Bob Bennett, also a longtime member of the club.

You can catch it and all the other great Radio Wild videos on his YouTube channel: www.youtube.com/@Radiowild. The Swapmeet video is: youtu.be/ILf-PHBhfPg?si=xBYLJLMUcZkjRueU

Calendar of Events

September 12: NJARC monthly meeting, InfoAge

September 19-20: Kutztown Radio Show

September 26: HARPS monthly meeting, Suffern NY

October 7-11: AWA Conference, Henrietta NY

October 10: NJARC monthly meeting, Princeton

October 17: HARPS monthly meeting, Suffern NY

October 25: NJARC Autumn Repair Clinic, InfoAge

November 14: NJARC monthly meeting, Princeton

November 22: NJARC Fall Show, Parsippany

November 28: HARPS monthly meeting, Suffern NY

December 13: NJARC Holiday Party, Jackson

November 19: HARPS monthly meeting/holiday party, Suffern NY

From the President's Workbench

Greetings Fellow Enthusiasts!

Here is a quick review of our summer repair clinic, held on Saturday, August 23rd. Members Nevell Greenough and Bob Bennett were recuperating from their illnesses, so they were on the disabled list. But fortunately, our list of repair clinic "Expert" volunteers has increased thanks to the addition of Aaron Hunter, Joe



The President's Workbench.

Divito and Doug Poray. As I have always explained, the number of Experts we have available for our repair clinic dictates how many clients we can offer a morning reservation.

Thanks to club Trustee, Bill Zukowski, our repair clinic venue in room 9032A was set up correctly on the previous Wednesday! All work tables were within close reach to electric outlets, a real plus!

As happened during last summer's clinic, concurrently, the local The North Shore Antique Automobile Club of New Jersey was having their show on the grounds of InfoAge. There were some classic beauties to admire!

Most radios entered our clinic not working. But most radios left our clinic working thanks to Bob

(Continued on next page.)

THE JERSEY BROADCASTER is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated to preserving the history and enhancing the knowledge of radio and related disciplines. Dues are \$25 per year and meetings are held on the second Friday of each month either at InfoAge or at Princeton University. Neither the editor nor NJARC is liable for any other use of the contents of this publication other than for information.

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President's Workbench

(Continued)

Johansen, Bill Zukowski, Doug Poray, Aaron Hunter, Joe Divito, Matt Reynolds and John Ruccolo.

Radio Bagels and *Radio Pizza* were on the menu, plus a special treat: homemade cookies & brownies baked by Mrs. James Valdata aka *JAY VEE*.

— Richard Lee, Pres. NJARC

Photos from the Repair Workshop:

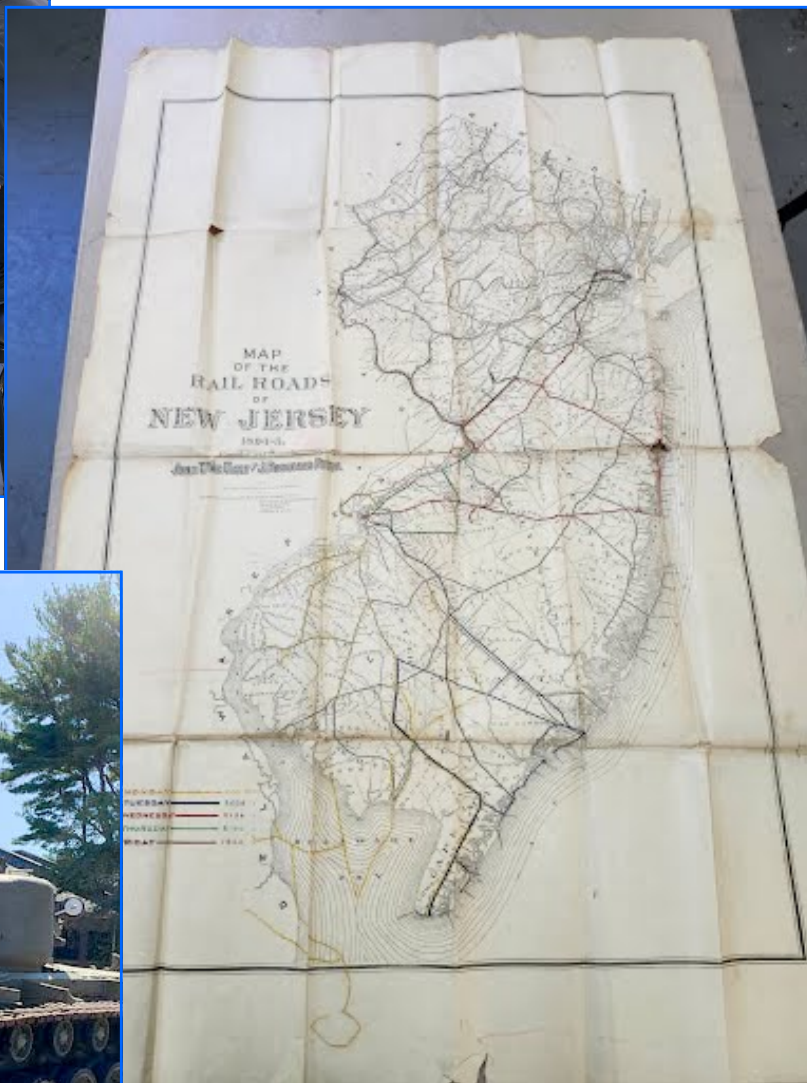


Aaron working on an AK

President's Workbench (Continued)



Bill working on a large wooden Crosley



JayVee brought in a historic map of the New Jersey rail system from 1894



President Rich, thinking of purchasing this US Army Tank at the car show for the RTM...

(Continued on next page.)

President's Workbench (Continued)



Safety first! With Joe Divito



Doug Poray works on a small Crosley



Bob Johansen, The *Triage Specialist* of the repair clinic

Surface the Capacitors!

By Joseph Divito (Continued from last month)

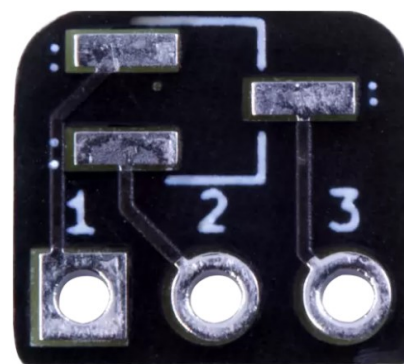
Surface Board!

I have had good results up to this point soldering wire leads directly to these capacitors. It can be a bit tedious, though. A good discussion on the NJ Antique Radio Club's E-mail forum, The Communicator, yielded some promising ideas for experimenting further with adapter boards. They allow SMD capacitors to be soldered the way they are meant to, and the traces lead to through hole solder points where the wire leads can be soldered into. This promises to make the process go faster, though there is a little overhead to purchase these adapter boards. Having said that, prices are quite reasonable, and even factoring in the price of the boards, you can still come out ahead on price. One example I have used is from Antique Electronic Supply (<https://www.tubesandmore.com/products/pcb-smd-thru-hole-adapter-sot-23-92-123-pinout>) at \$1.45 for a pack of 5.

PCB - SMD to Thru-Hole Adapter, SOT-23 to TO-92, 123 Pinout

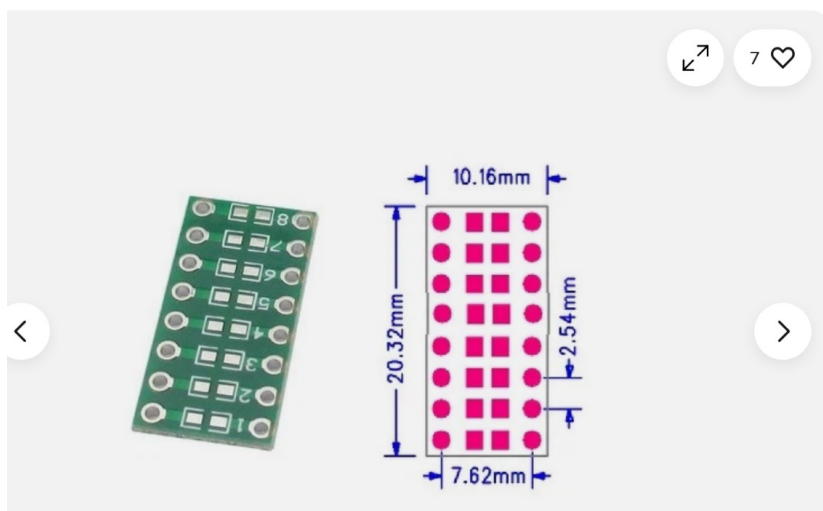
PCB for converting SMD SOT-23 transistors and FETs to through hole footprints. This adapter board fits SOT-23 packages. Solder the device to this PCB then attach wires or pin headers (sold separately) to connect to through hole footprints on PCBs or breadboards. The white box on the PCB can be used to label the part with a marker. See image below for pinout.

Note: this listing is for the adapter board only. Components pictured are for demonstration and must be purchased separately.



Screenshot from Antique Electronics Supply Website

I also have soldered components to these boards I bought on eBay (\$1.96 for a pack of 10.)



Screenshot from eBay

10pcs SMD/SMT Components 0805 0603 0402 to DIP Adapter PCB Board Converter S



Satisfy Electronics (220259)

99.7% positive · [Seller's other items](#) · [Contact seller](#)

US \$1.96

Condition: **New**

Quantity: More than 10 available · 51 sold

[Buy It Now](#)

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Surface the Capacitors!

(Continued)

These I used a sharp pair of sheers to cut the boards so I could use pairs of solder pads individually so I could extend my investment even more.

Although I have yet to use my latest crop of surface mount capacitors mounted on these adapter boards, I have tested both types of assembled boards on my Knight R/C tester. This unit (pictured below) has been fully recapped and known to be working.



I tested them up to 450 volts, the limit I can test for shorts/leakage with this unit. Both styles of boards worked perfectly, with no leakage/shorts. Capacitance was spot on (I double checked using a modern capacitor tester which had better resolution for capacitance). I haven't an opportunity to install any of these in a tube radio but will be writing a follow-up on how well these work in circuit if there's interest.

Below is a picture of one of the assembled boards, showing how this has potential to simplify installation.



Soldering requires a new technique, since surface mount boards violate the old school tenant of making a firm mechanical connection before applying solder! You are literally laying down the part on pre-tinned pads, then using a little more solder to wick up the sides. Only the solder is holding these little things in place. I learned the HARD way you absolutely need especially fine solder wire to do this type of soldering. Solder wire

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Surface the Capacitors! (Continued)

thickness that we usually use for point-to-point work is way too big. It's impossible to melt a small enough amount of solder to do surface mount work.

If you wish to experiment yourself with these boards, I strongly recommend investing in a spool of solder made specifically for surface mount work.

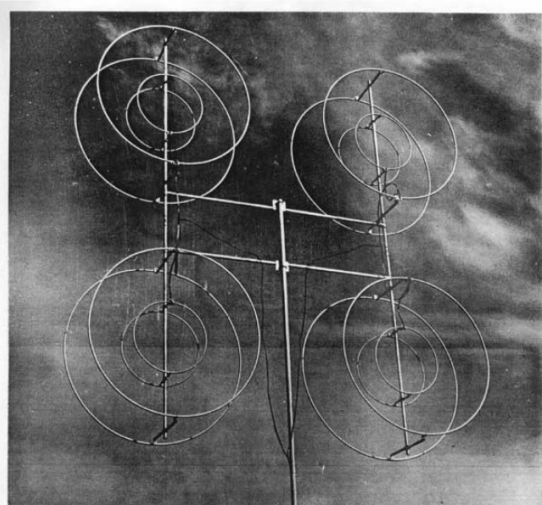


At 0.3 mm, this is what you want. I got this on Amazon, but the source isn't as important as the size - you need to use solder this fine to lay down precise amounts without flooding the board.

The Future is Now

I have found it fun to use the most modern capacitor technology to keep these great old radios playing. To date, I have had good results using these surface mount ceramic capacitors in all the places they used paper capacitors. They live up to the advertised voltage ratings and have been used for hundreds of hours play time in various radios in my collection. I don't baby my collection, either. I work full time from home, and when a radio is on during work, I tend to leave it on for the day. Twelve to fourteen hours (when a Phillies game is on the radio) is not uncommon. I will continue to experiment with and try these out in various radio applications as a learning experience. It's really not necessary, not yet anyway. Traditional capacitors with honest to goodness leads can still be easily found. At least for now. In ten years, the world could look different based on industry trends that I've read about. Even if the worst happens, it's good to know from these experiments that the hobby can be ready—in a world without leads, we'll still be able to keep our old radios singing!

A Dual-Band Television Antenna



TELESINE DUAL HIGH AND LOW TELEVISION ANTENNA
Model 4-8/8-4 - Model 5-8/8-8 - Model 6-8/8-8. Power
gain of 40 Matches single 300 ohm line for reception beyond
the fringe area of both high and low channel stations.

Manufactured by TELESINE ANTENNA CORPORATION
INTERSTATE ELECTRIC COMPANY, SHREVEPORT, LOUISIANA - In Charge of Sales

In a recent post on our *Communicator* Paul Mondok asked (facetiously) if we might put an antenna like this on the roof of our museum.

Bob Bennett replied that the design was remarkably similar to some of the current over-the-air digital TV antennas being sold. He speculated that with the addition of a reflector element, it might also pick up "those pesky" low VHF signals.

Refinishing a Radio Cabinet (Part 3)

By Dan Gervaise (Continued from last month)

Making a tint

While finding tints in the color we want is getting more difficult, I've usually built up my tints using a mixture of dye or stains in some lacquer. I use TransTint made by Jeff Jewitt and available at Woodcrafters.



And a non-grain-raising stain like this alcohol-based product.

Any leftovers I have from a particular radio job, I'll drop it back in one of the bottles I keep to use later as a base colour. (I label the bottles based on the mix or radios, for example: brown mixture, Philco black.)



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Refinishing a Radio Cabinet (Part 3)

(Continued)

For example for a 1 oz jar, fill 80% with some lacquer the rest with lacquer thinner. Add a couple of drops of the TransTint dye (dark walnut or another dark color.) Simply saying add drops of tint as needed is an enormous oversimplification! It's not really easy to get the right color! It is best to start with a mixture that is not as dark as the final result desired and add coats for the final color. This is where spraying really pays off. If you use a paint brush for a second coat it will somewhat dissolve the first and there is a good chance that you will end up with some bare wood spots and a mess. Waiting for the first coat to dry completely and then going over with one swift brush stroke helps, but it's still a bit hit and miss. Airbrushing avoids this all together.

My secret formula for a good tinting lacquer is to use the mixture discussed above. However I make it light (meaning not as dark as the final result required) and then add a small amount of earth color pigments. This provides the opacity usually required for trim areas that used cheap, not color uniform wood. Finding a good earth tone pigment is not easy. Some are too brown, some too red or the pigments particle size too big (too coarse.) Craft stores are your best bet at finding some good pigments. Purchase one or two different earth tones. Consider that once mixed in a liquid, the pigment will darken up quite a bit, so this adds to the fun in finding the right color! My final thought on adding pigment is to add just a bit and not try to get all of the opacity with simply the pigment.



Shellac as a finish

Shellac was the finish of choice for most of the early '20s radio. Shellac (like lacquer) is an evaporative finish, meaning that the finish hardens as the solvent in it (usually denatured alcohol or methyl hydrate) evaporates. If you apply a second coat it will dissolve and bond to the first. If you purchase shellac in flakes, it's shelf life is indefinite, but once mixed it is about 6 months in a container. The mixture is usually a 2 pound cut, meaning 2 pounds of shellac in one gallon of methyl hydrate (methanol.) For a pint of alcohol, this works out to 4 oz. of flakes. Mix, let it stand for a couple of hours and then filter out the solids with a fine filter (Shellac is secretions from the lac beetle left on a tree, so there are going to be some bits of bark left in there.) There are several grades of shellac. The waxed version simply means you'll have to sand in between coats, so it's usually best to get unwaxed. Also, you can get different colors of shellac, from the orange to the light blonde. Light blonde is usually what we want to use on veneer.

The advantage of using shellac is its lower odor and lower toxicity, although you still need to consider that you've mixed it in with a solvent. Denatured alcohol sounds good but its actually alcohol mixed in with a denaturant (something to make it unfit for human consumption) such as gasoline, so that still somewhat dangerous. The same applies to methyl hydrate. In all cases you should still wear a carbon adsorption cartridge respirator mask when spraying shellac (as you would with lacquer.) That having been said, shellac is not as toxic as lacquer and will not stink up the house!

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Refinishing a Radio Cabinet (Part 3)

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Recommended reading and supplies

There are several good books on wood finishing that provide an excellent base knowledge.

If you're going to get one book that will help you with radio finishing, this is a book I consult quite often and I highly recommend it:

Understanding Wood Finishing – Bob Flexner Fox-Chappel Publisher (get the second or even third edition)

Jeff Jewitt is highly regarded and apart from having a line of wood finishing supplies, like TransTint dye (see <https://homesteadfinishingproducts.com/about-us/>) has published several books, this is one I have and it is very good:

Tauntons's Complete Illustrated Guide to Finishing – Jeff Jewitt. (<https://bit.ly/4mfsH9t>)

Woodcraft stores are an excellent source for your finishing supplies, from lacquer, dyes and even veneers, they are an excellent source. (<https://www.woodcraft.com/>)

Radio-related YouTube Links

In addition to our own informative “Tech Talk” videos recorded at our monthly meetings (<https://www.youtube.com/@njarc/videos> and <https://www.youtube.com/@njarc/streams>) links to other interesting radio-related videos are regularly posted on our email list *The NJARC Communicator*. Here are a few recent ones:

- Zenith technology promotional film: “*The Long Corridor*,” 1955. <https://youtu.be/anvked512qs>
- One of the earliest NJARC Tech Talks: “*Antennas and Grounding*” <https://youtu.be/4x8XVcdquvc>
- “*The Secret Ham Radio Operators Who Helped Crack Enigma*.” <https://bit.ly/488FM0I>
- “*How They Made Ampex Tape Recorders*.” <https://youtu.be/o-AfaZSHMYy>
- “*1940s Radio for Home Repairs - Music for Fixing, Repairing and Thinking*.” <https://bit.ly/3JYZaTV>
- Early Music Synthesizer: “*Milton Babbitt and the Music Machine (1962)*” <https://bit.ly/4nhOn6d>
- “*Britain's Secret WW2 Electronic Component Lifesaver!*” <https://bit.ly/3IkkGlX>
- Soldering 101: “*Hand Soldering (1944)*” https://www.youtube.com/watch?v=wvl_KYif9zA
- “*The Indian who owns the most radios in the world*” https://youtu.be/_laRaZZnsFg
- “*Why Single Side Band (SSB) Almost Never Existed!*” <https://youtu.be/dtl2rLhWGEA>
- “*How the Soviet Spy Bug Worked – Engineering Behind the Secret Device!*” <https://bit.ly/4nkmoll>
- “*Restoring an AK model 40 power-pack*” <https://youtu.be/B6stJHiHMCY>
- “*Vintage 1962 Ham Radio Field Day*” <https://www.youtube.com/watch?v=JYaqXyBLPBA>

Here's an idea: let's continue to share interesting links to YouTube videos and websites on the Communicator (or send them to webmaster@njarc.org) and we'll compile them as a list on a page on our website.



52nd KUTZTOWN RADIO SHOW **September 19 & 20, 2025**

Two days of radio-related activity

- 60,000+ sq. ft. outdoor and under roof event
- Hours: Friday 10am-5pm, Saturday 8am-3pm
- Radio Auction 5:30pm Friday night in air-conditioned comfort
- Buy-it-now table open Friday & Saturday
- Capacitor & Tube sales at the Club Table Fri & Saturday
- Free admission
(*Dealer Tag Required for 8am Friday entrance*)
- Free parking & onsite camping
- Hot showers available
- Food available onsite & at nearby Farmer's Market

Dealer spaces:

- 10' x 10' spaces are \$55.00 (includes 1 table and electricity –bring your own extension cords.) All spots are under roof. Extra tables are \$10.

- To reserve a table contact Renninger's. www.renningers.com or by phone: Mon-Thurs (570)385-0104, Fri-Sat (610) 683-6848.

Friday:

-Friday is open for vendor setup after 8am. General public allowed at 10am. Vendors should expect to show their Renningers space tag upon entry. Early buyers will not be permitted without a dealer tag.