

Building the 32 volt Power Supply **By Greg Van Beek**



<h3 style="color: red; margin: 0;">Next WARCI Meet:</h3>
<p>Sunday March 26, 2017 8:00—11:00 AM Doors open 7:00 AM for setup, indoors if needed</p>
<p>The Landmark / Terminal site (see page 20) located at 5905 / 5917 So. Howell Avenue, in Milwaukee, near the Airport. Look for the signs !</p>
<p>Featuring the 50-50 raffle, Donation Auction, and Joe's staff cooking Great FREE Pizza !!!</p>
<p>Election of Club Officers</p>

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WARCI, INC.

The Wisconsin Antique Radio Club, Inc. exists to preserve the knowledge of radio, television, and other related technologies. We have a special interest in the history of radio in Wisconsin, radio companies, radio stations, etc. Our members' interests include radio, television, audio, microphones, jukeboxes, and antique phonographs.

Officers and Board

President - Nick Tillich

president@warci.org

262 271-1564

Vice President – Terry Hanney

earlyradiosets@gmail.com

414-545-6425 / 414-429-4405

Treasurer- Bill Engaas

CraftyradioBK@yahoo.com

262-735- 4589/414-217-6001

Secretary - Mike Sajdowitz

msajdowitz1@gmail.com

262-544-1486/262-352-1148

Board - Dale Boyce, Mike Krawczyk, Jim Menning, and Dennis Schrank

WARCI News Editor – Mike Sajdowitz

msajdowitz1@gmail.com

WARCI Website – Nick Tillich

webmaster@warci.org

WARCI Information

WARCI is incorporated in the State of Wisconsin. Annual membership dues are \$15 for each calendar year,

January – December. (Allowance is now made for new members joining in September or November.)

Seller's fee at Swap Meets is \$7.00 for members, \$10 for non-members. The next Swap Meet will be held on Sunday March 26, 2017, at the Landmark / Terminal facility on Howell Avenue near the air-port (see insert).

WARCI News

This newsletter is the official publication of the Wisconsin Antique Radio Club, Inc. It is published five times per year, in January, March, May, July and September. In November a post card announcing the up coming years swap dates will be mailed. The WARCI News is free to all paid-up club members.

The entire contents of this publication are copyright ©2017 Wisconsin Antique Radio Club, Inc. unless specifically marked otherwise. Generally, all articles in the WARCI News may be reprinted, provided specific permission is first obtained from the Editor (and copyright holder, if not WARCI) and full credit is given.

Articles or material for the newsletter are most welcome and should be sent to msajdowitz1@gmail.com or W220 N2716 Maplewood Ln, Waukesha, Wi 53186. Include your name, address, phone, and email. PDF format (e.g. MS Word) by email is preferred. JPEG for images is preferred. Please contact Mike Sajdowitz for assistance.

Classified ads up to ¼ page are free to WARCI members.

The cut-off date for all newsletter material is about the 15th of the month preceding publication of the next news-letter (e.g. December 15 for the January issue.)

Rules for New Member Dues

WARCI membership runs January to December. But we do get new members joining later in the year. To accommodate them, the WARCI Board has agreed to a policy for membership dues for late joiners. From now on, if a person joins at the September meet, we'll charge \$6 for the remainder of the year. If a person joins at the November meet, we'll just charge \$15 and include the following year.

WARCI Website

www.warci.org

The WARCI website features information about WARCI activities, Wisconsin radio, articles, etc. Contributions are most welcome! Contact our webmaster Nick Tillich, at webmaster@warci.org . Thank you, Nick, for your great work !

WARCI NEWS

January 15 Meeting Notes

The January meet at the Knights of Columbus in West Allis, Wi was another great success, well attended with 8 sellers on the floor, and by 9:10 AM there were 80 people at the meet looking for items for sale. With the turn out that good we had a donation auction with 22 items up for grabs which brought in \$63 for the club. We did not have a 50-50 raffle. We had 3 members re-new there memberships 1 of which was for lifetime membership. Clothing sales sold \$57.00 worth of items by which made us completely sold out. Nick Tillich is going to place another clothing order to bring us in line for the next meet. Nick also mentioned the website WARCI.org was down January 4, 2017 due to a bad update. The website was restored and up and running with no loss of data. The club would like to thank all who came to the meet, and hopefully you can tell your friends of our club gathering, and maybe they would be interested in attending and possibly join the club. Our next meet will be March 26, 2017, again at the Landmark as an indoor meet but could be outside weather permitting.

Note to Members

When paying your annual membership fee, please fill out the membership form, so that we can track members who have paid and not paid for the year, check for address, e-mail, or the way you want your newsletter delivered. There have been a few instances in past year's where people said they have paid and we have no record of the transaction, or a name written on a piece of paper. We do not want to lose you as a member, and you miss out on the newsletters or any upcoming events within the club!

Membership Update

As of the end of January's meet we have 87 active members and 29 un-paid members. Remember this is your club and to keep it strong we need to have a good membership. Our bank account as of this meet is \$5578.00. Any transactions from this past meet are not reflected on this total. The board agreed not to raise membership fees for this year, and this will be discussed on a year-to-year basis. Any member of the club is allowed to sit in on board meetings after each meet.

!!! NOTICE !!!

**WARCI Club will hold
Officers Elections on
March 26, 2017**

**Everyone is welcome to
participate in the voting
process and to keep the club
operating for years to come.**

Anniversary

WARCI is 20 years old
Complete story with pictures
In the May issue !!!

News from Neighboring Clubs

45th Annual

MADISON HAMFEST



Sponsored by MARA, the Madison Area Repeater Association
A Non-Profit Organization

Saturday April 08, 2017
8:00 AM until 1:00 PM

The MARA Hamfest features vendors of new and used equipment for Amateur Radio, Electronics, Computers, computer parts and software. Come see our huge Flea Market in the Mandt Community Center's spacious 26,000 sq ft main hall.

VE test sessions start at 10:00 AM.

Vendor space sold "first come, first served".

Location: Mandt Community Center (Same location since 2000)
GPS: North 42.91157 West -89.21647
Address: 400 Mandt Parkway Stoughton, Wisconsin
Directions: Take US Hwy 51 South from Madison to downtown Stoughton, WI.
Turn South on 4th Street and Mandt Center is 3 blocks ahead on left
Talk In: MARA's Wide Area Repeater 147.150 MHz (+600) pl 123.0
Parking: Free
Seller Setup: Friday night 6:00 PM to 8:00 PM and Saturday morning, 6:00 AM



Scan for web site

Ticket and Table Prices

Hamfest general admission tickets: \$5.00 per person. Eight foot vendor table fees: \$16.00 if postmarked by March 20, 2017 - \$20.00 if postmarked after March 20, 2017 - \$25.00 the day of Hamfest. Please provide your own seating if needed.
All orders are final - No refunds.

Hamfest ticket and flea market forms as well as vender and commercial wall space forms are all available on the MARA website: www.qsl.net/mara The forms are needed to purchase tickets and tables.

If you have questions about purchasing tickets, table space or commercial vendor information please check the web page or contact Paul Toussaint by e-mail at w9hsy@execpc.com, or call 608-205-1994.

News from Neighboring Clubs



A.R.C.I.
P.O. Box 1139
LaGrange Park, IL 60526
630-739-1060

**PRESERVING THE HISTORY AND
ENHANCING KNOWLEDGE
OF RADIO AND RELATED
DISCIPLINES**

Menu:

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[Sign up for the
ARCI Email list
Here!](#)

*From this list you will
receive notifications of
radios for sale, repairs
or parts needed, and
other information for
our regular members.*



ARCI *Antique Radio Club Of Illinois*

Welcome to the ARCI website!

The Antique Radio Club of Illinois, is a nationwide family of over 500 people dedicated to the preservation of antique radios and related items. We have bi-monthly meetings and regularly draw collectors and enthusiasts from all over the Midwest.

We meet six times per year offering seminars, swap meets and equipment contests. Our Spring, Winter and Fall meets are held at The American Legion hall in Carol Stream, IL.

At our annual Radiofest, we sponsor seminars and displays on various topics related to restoration, historical presentations and helpful "how-tos" for Radiofest attendees. During the Summer months, we have two special meets in June and August each year. Our June meet is a combined meet with the amateur radio 6-Meter Club of Chicago and is held at the DuPage County Fairgrounds in Wheaton, IL. August brings our nationally renowned, three day event ...
Radiofest !

**Next Meet
April 30
Carol Stream, IL
7:00 A.M.**

Radiofest

The dates for Radiofest are set - August 4-5-6. 2017. Same location.

The link for making hotel reservations is now available.

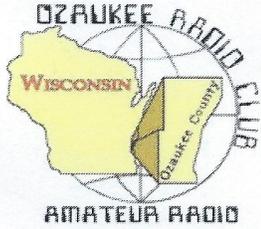
Individuals can make reservations by calling the hotel at 630-691-0500 and mentioning RadioFest to receive the discounted rate. They can also use the online booking link below.

<http://hiltongardeninn.hilton.com>



News from Neighboring Clubs

The Ozaukee Radio Club, Inc. presents it's 39th annual Indoor
Amateur Radio, Electronics & Computer Spring



SWAPPFEST

Saturday, May 6th, 2017 – 8am to 1pm (6am Set-Up)

HUGE 16,000 sq. ft. Facility!

Columbia St. Mary's Center – Cedarburg, WI W67N866 Washington Ave.

Talk-In: 146.97 - pl 127.3



Like us on
Facebook.com/orcwi

www.ozaukeeradioclub.org

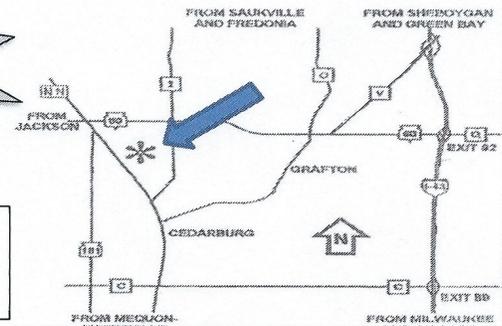


Table Spaces \$10 (All Tables are 6')
Buy 1 Ticket & 1 Table... just \$15!

Use Order Blank below or Call Loren Jentz, N9ENR at 262-377-7941 for Tickets and Tables!

For Advance Tickets, Send Check, with Self-Addressed, Stamped, **Business-Sized Envelope** to:
Loren Jentz, N9ENR - 1213 Woodridge Dr., Apt. 1, Grafton, WI 53024
Entrance Tickets just \$5 (Please make checks payable to ORC)

Company Name: _____ Phone # _____
 Contact Person: _____ Callsign: _____
 Address: _____ e-mail: _____
 City: _____ State: _____ Zip: _____
 No. of Tickets: _____ X \$5 = _____ Electricity: Yes (Add \$5) _____ No _____
 No. of Tables: _____ X \$10 = _____ Total Amount Enclosed: _____

(For Official Use Only)

Ticket(s) # _____ Table(s) # _____ Init: _____

Date: _____ Time: _____ Vendor Entrance Used (Circle One): **1** **2** **3**

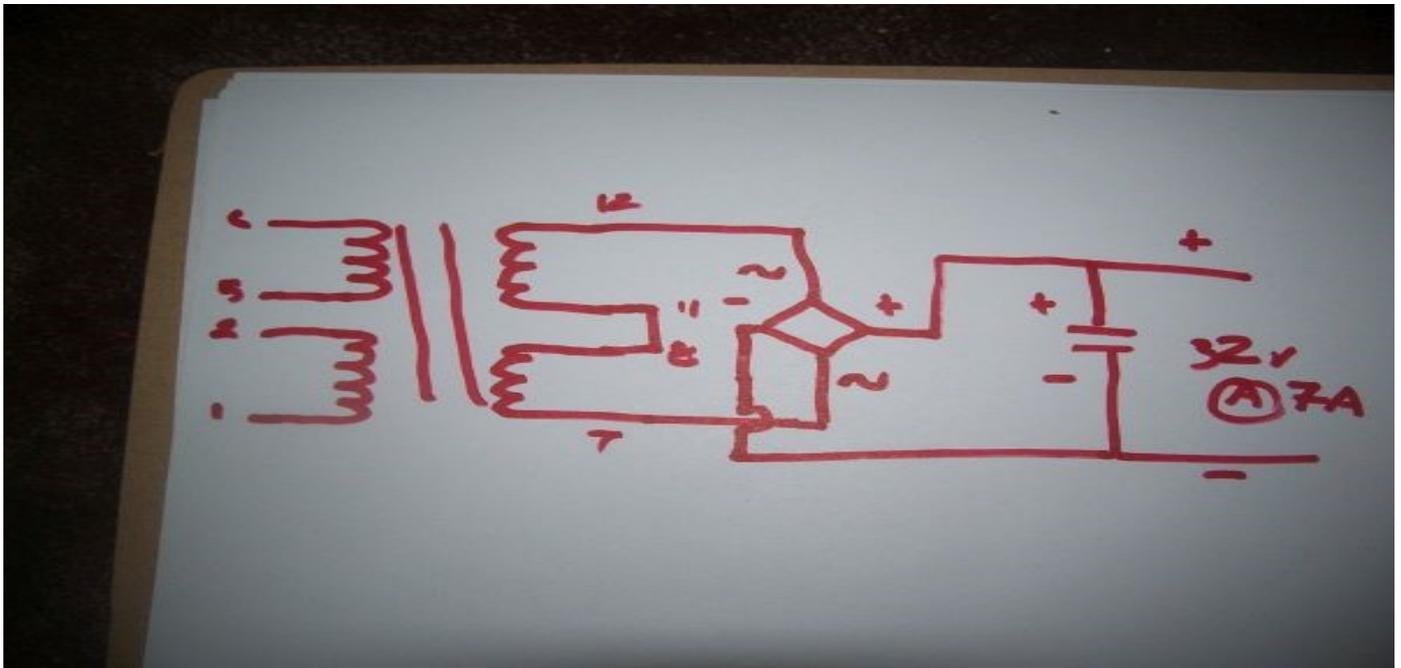
Building the 32 volt Power Supply

By Greg Van Beek

Pulling the last paragraph from the January 2017 Newsletter, “Beware of the 32 volt Farm Radios” I will continue to the building the 32 volt power supply.

Quickly a Phorum expert named Terry chimed in and came to my rescue, under the heading “so the fun begins!” He pointed out the necessary components needed to build a power supply: a 115/220V 12/24V “step down” signal transformer rated at 175 VA, a 10A 100V Bridge Rectifier, and a large 10K mfd, 100V capacitor. He added “If you need direction in the wiring department I’m happy to help out.” Wow. Did I ever! I took him up on his kind offer and he went so far as to supply me with a hand drawn schematic. With connection points numbered and everything!

red pen hand drawn schematic below



To ready the transformer you will need to connect terminals 1 and 5 together Also terminals 2 and 6. this connects the two primary winding in parallel so it can operate from your 120vac mains. It can be configured to operate from 220vac if you find yourself in the UK.

The secondary you'll need to employ a jumper from terminals 8 and 11. This connects the two 12vac winding in series to make 24vac from terminals 7 and 12.

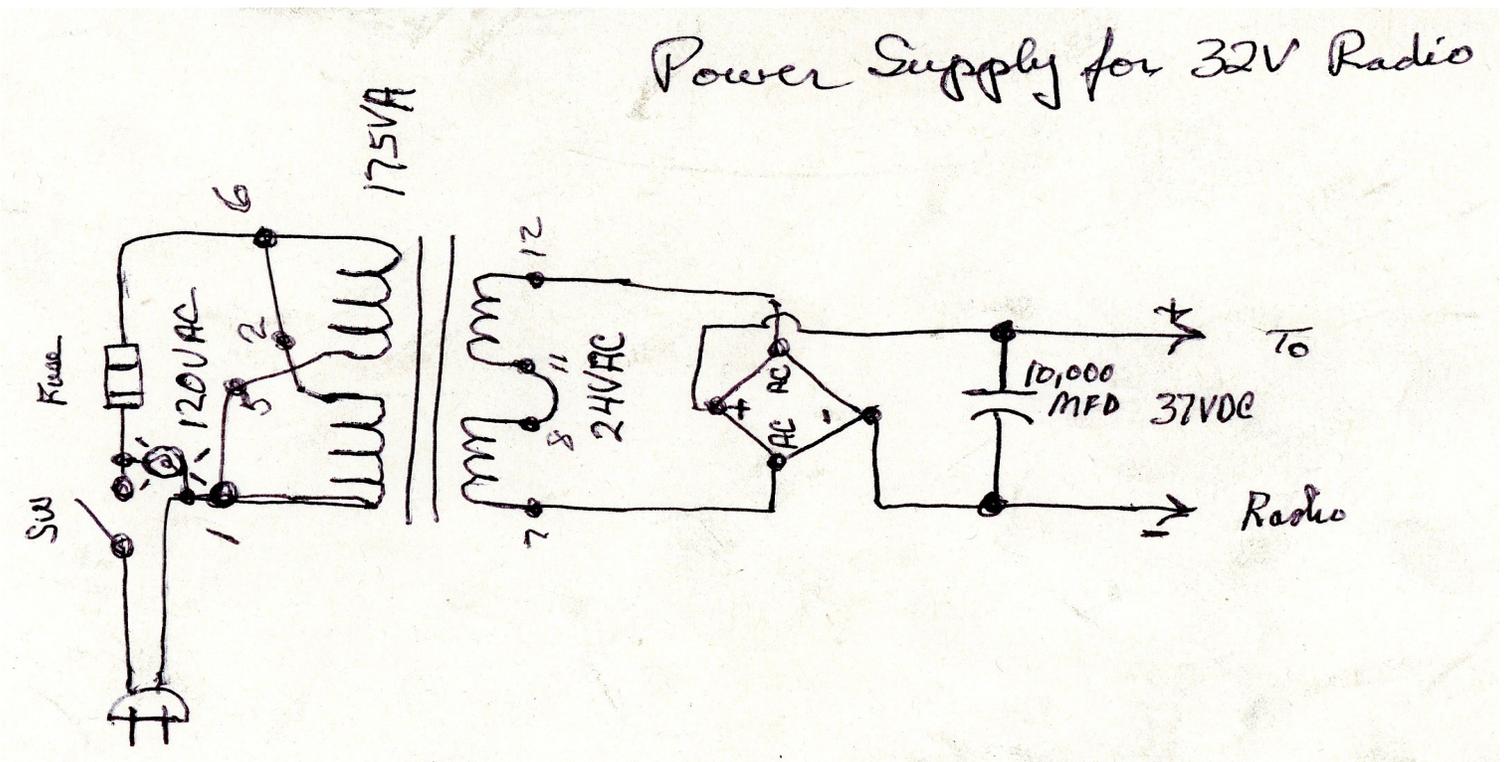
(Continued on page 9)

On the bridge rectifier there are four connections and you'll see three different markings on it. Two of the marks look like sideways S's, these are where you connect the 24vac from the transformer's secondary. The other two will be a + and -. They will be connected to + and - on the filter cap. And then to the + and - to your set. Couple of notes. Use a little heavier wire than 20g hook up wire. 16 should be ok. Be sure when installing the filter cap that the polarity is correct. Backwards it could go off like a M80. May want to add a power off/on switch.

Incredible! I quickly ordered the components, and found a power supply enclosure on Amazon. I thought it would work (search for Waterproof Cable Connect Power Project Case Junction Box 200x120x115mm. They come molded in grey plastic. I painted mine black). While waiting for those, I checked the tubes. Remarkably all still tested good. Even the dial lamps were still good. So I was confident this set hadn't been exposed to direct 120 AC voltage, and I began recapping the set completely. Except for the two electrolytics's, all of the paper caps were original. Even in the power supply / vibrator unit. I also cleaned and detailed the cabinet. Using GoJo or Goop cream hand cleaner and working it into the wood does an amazing job of cleaning grime and bringing the original finish back again. A cloth dampened with a bit of Minwax dark walnut and wiped on the cabinet brought out the beautiful woodgrain. Lastly, I touched up the black accent trim.

Back to the new power supply. I worked with my dad on this, as he was an electrical engineer and knows a lot more about transformers than I ever will. We decided to add an off/on toggle switch, 2W fuse, and a pilot lamp to indicate when the unit was on. Those can be seen on this revised schematic.

black pen hand drawn schematic below



WARNING !!!

I learned that the original schematic in **red** pen from Terry was wired for 240v. You'd need to connect terminals 2 to 6, and 1 to 5 for 120V if you want to work off of that without the switch, fuse and lamp.

(Continued on page 10)

I got VERY lucky with this set in that the vibrator worked perfectly from the first initial start up. That's amazing for an 80 + year old vibrator! Without that functioning, things would've been a whole lot harder. But, as Arran on the Philco Phorum said, there is another alternative if you don't want to deal with the vibrator. You can bypass the vibrator supply, leaving it intact of course, build a normal mains operated power supply to generate the same high voltage that the vibrator supply produced, and feed it into the B+ circuitry of the radio. Then you will only have to deal with powering the tube heaters which are likely in a series parallel arrangement, junk computer printers and stereo amps may offer a source of a 32 (or close enough) volt transformer for this.

Amazingly the set came to life with the new power supply! It measured 33 V DC, which was right on the money. One thing I quickly learned is this set needs to be grounded or it will buzz like crazy on most of the dial. To solve this, a 3 prong power cord was used, and the ground wire from the radio chassis was connected to the ground wire on the cord. I used quick connect plugs on the ends of the power supply wires, so that it can be removed if ever a problem arises without having to take the chassis out as well. The black box containing the new power supply was mounted inconspicuously on the bottom side of the chassis shelf, upside down and a hole for the wires to pass through to the chassis was added. I couldn't believe how well it all worked out...the components fit perfectly in the black box, and the box itself fit inside the cabinet without interfering with any chassis mounting bolt holes too!

The 32 volt vibrator power supply in the metal cylinder was originally suspended under the chassis shelf with some kind of rubber straps but that being long gone, and with no picture of what it originally looked like, I improvised with zip ties. The new power supply was mounted inconspicuously upside down on the bottom side of the chassis shelf in the cabinet. The small cabinet with it's beautiful burl wood, rippled trim and black accents are what really drew me to this radio, along with the neat dial featuring two pinwheels that rotate when you turn the volume and tone controls.

So now I'm the proud owner of a real working oddity....a radio designed to operate at 32V DC. My thanks to all of the kind folks on the Philco Phorum...especially Terry....for helping me revive this 1935 Coronado that, judging by the thickness of the dust completely covering the tuning capacitor, hadn't been played in at least 60 years. And to you, dear readers, be advised and be aware of the 32 volt radio. Something to look for when considering your next restoration project. I know I will never assume any early 30's set with a transformer and power cord is designed for 120 V AC again!

Showing all of the components, save for the transformer

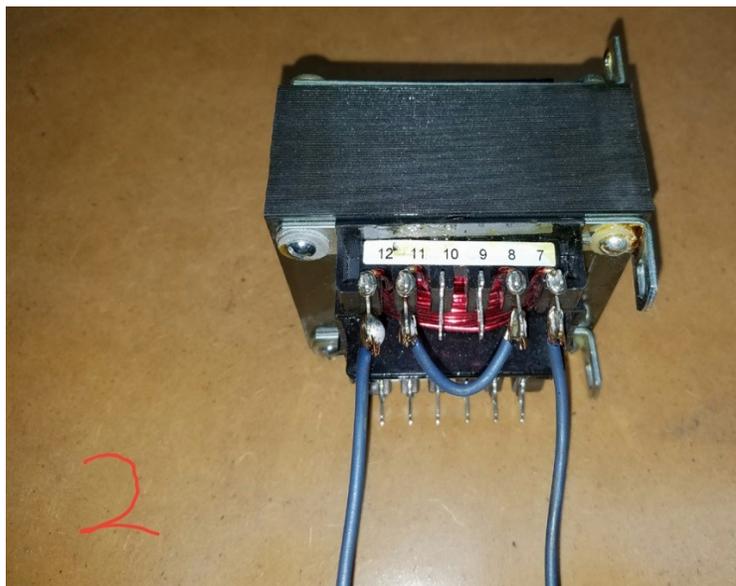


Showing the primary leads connected to the transformer



(Continued on page 11)

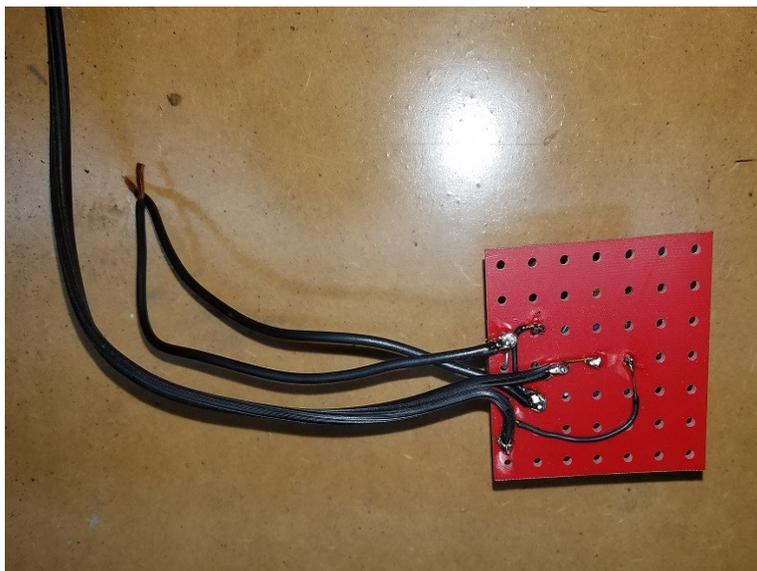
Showing the secondary leads connected to the transformer



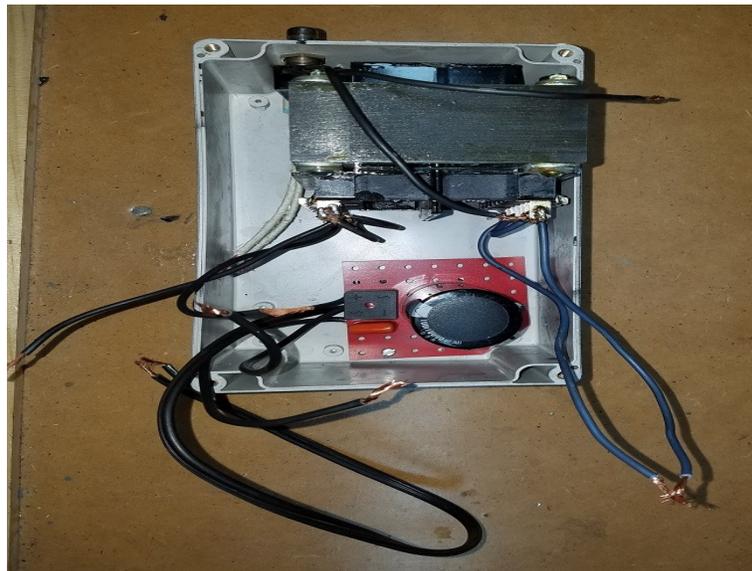
Showing capacitor, bridge rectifier and .1 mfd / 630 v capacitor mounted on terminal board. The .1 cap is across the AC side of the bridge rectifier to eliminate buzz.



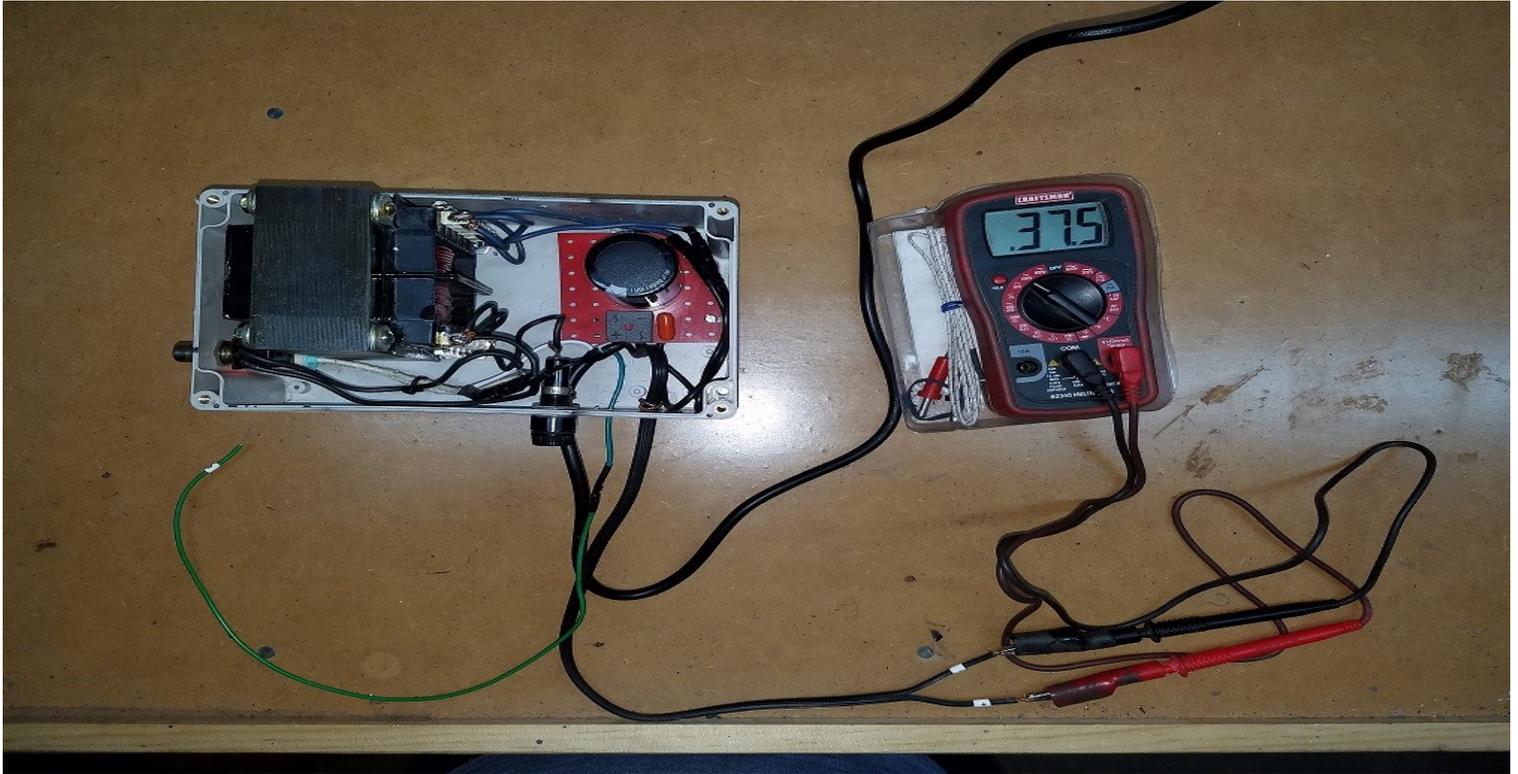
Showing capacitor, bridge rectifier and .1 mfd / 630 v capacitor mounted on terminal board, bottom side



Showing transformer and terminal board mounted in waterproof box



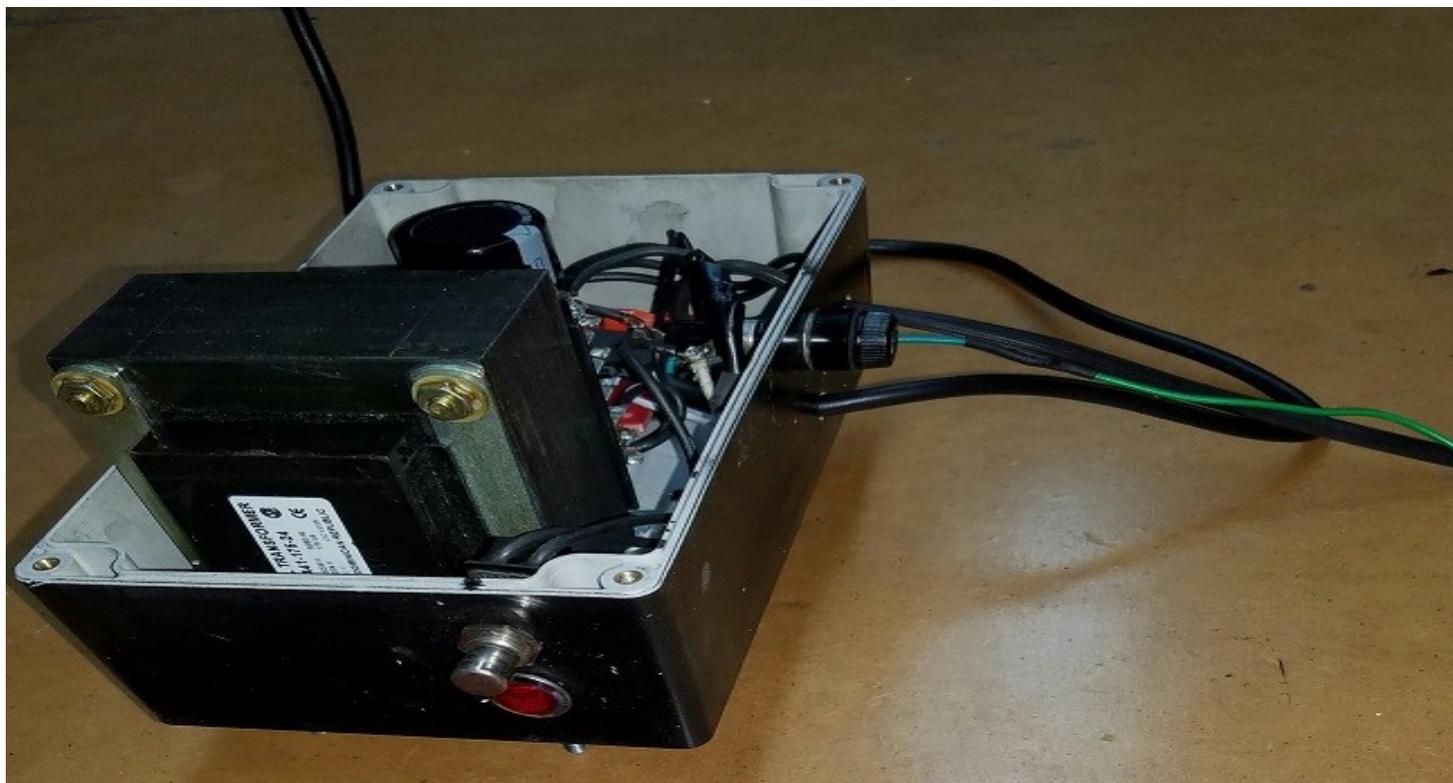
Showing power supply plugged into 120 AC wall outlet. Reads 37 VDC without a load. With the radio on, it will be around 33 – 34 VDC.



Close up inside power supply box with everything mounted and connected



Front view of power supply box showing off / on switch & Pilot lamp



Completed power supply enclosed in waterproof case.



Any comments, suggestions or more information, please contact Greg Van Beek at:
www.tvanbeek@execpc.com

Classified Ads

WANTED: All things Hallicrafters! Receivers, transmitters, accessories, television sets, test equipment, signs, books, etc. Also Silver-Marshall (1933-34) and Echophone.
Stan Broome, 108 East Main Street, Sun Prairie, WI 53590, 608-520-6290.

HELP NEEDED: Would like to contact owners of 1920's battery sets, literature, and equipment made by Globe Electric Company of Milwaukee, WI, to survey existing model types and variations for development of a company history. All responses will be kept confidential. Thanks.
Glenn Trischan, P.O. Box 240022, Milwaukee, WI 53224. E-mail: gnets142@att.net.

TRAINING & SERVICE: Michael Lewis -- Radio Restoration Education & Consultation

I'm available to refurbish (90 day guarantee) or fully restore (1 year guarantee) your antique radios. Estimates can usually be provided in 2-3 weeks from the time you drop off your set at my shop in rural Oregon, WI (a bit SW of Madison). The cost for an estimate is \$25, which can be applied towards a final bill if you hire me to work on your radio. Full restoration includes testing all tubes, capacitors, and resistors, with replacement as needed. Power supplies are modified to operate safely at 120 VAC. Chassis are dusted off, variable capacitors are flushed with residueless cleaner, and switches & pots are treated with contact cleaner. Moving parts are lubricated. Sets are aligned with digital RF generators, tested for proper operation, and "burned in" to reveal any intermittent problems.

I have over 30 years' experience in electronically restoring antique radios (I don't restore radio cabinets). For most of this time I've also taught others how to do radio restoration. I can be hired for 4- or 8-hr. blocks of bench time. You will have access to DMMs, digital audio and RF generators, capacitor and inductor analyzers, power supplies, and much other test equipment. I stock 1/4, 1/2, 1, 2, 5, and 10W resistors. Capacitor stock includes 75 values of mylars; micas & ceramics; electrolytics from 25 WVDC to 450 WVDC. Tubes are available to my students, as well as technical literature including Rider, Beitman, and Gernsback manuals, factory manuals, and Sams Photofacts. Whether you've never soldered before, or regularly restore radios & are stuck on a "tough dog," chances are I can help.

Michael Lewis, 6070 County Road D, Oregon, WI 53575, Phone: 608-835-7193, Email: deepheart@att.net

WANTED: DeForest Plug-In Butterfly Coils - Terry Hanney, 414-545-6425

WANTED: Sylvania lamps NE-23-N5A1-5AB with starting voltage 60-90 volts, maintaining voltage 59 volts, current 0.03 mA. Tom Palmer 262-789-7177

FOR SALE: Rayon cloth-covered line cord for the Antique Radio Builder. Colors black or brown, cost is \$1.26 per foot for brown, \$1.38 per foot for black. Paul Dorobialski, Email: thebulbguy@yahoo.com.

Remember that classified ads up to about ¼ page are free to WARCI members.

The cut-off date for all newsletter material is about the 15th of the month preceding publication of the next newsletter (e.g. April 15, 2014 for the May 2014 issue). Send ads by email or letter to Mike Sajdowitz, WARCI News Editor at: msajdowitz1@gmail.com

WARCI Radio Services

We now have a list of WARCI members who would be willing to provide repair / restoration services, advice or research for folks who contact WARCI looking for help. If you would like to be added to the list, please let me (Greg) or one of the Board members know.

Name	Email	Telephone	Service Available
Dwight Church	(none)	414-545-6972	Radio repair - electronics only.
Bill Engaas	CraftyradioBK@yahoo.com	262-786-8183	Speaker Repair.
Mike Lewis	deepheart@att.net	608-835-7193	Repair, restoration, training.
Ben Bensaid	Ben@badgerconsignment.com	262-581-5453	Repair and restoration.

Classified Ads

Badger Consignment

eBay Power-Seller

Turn your collection into profit-making treasures!

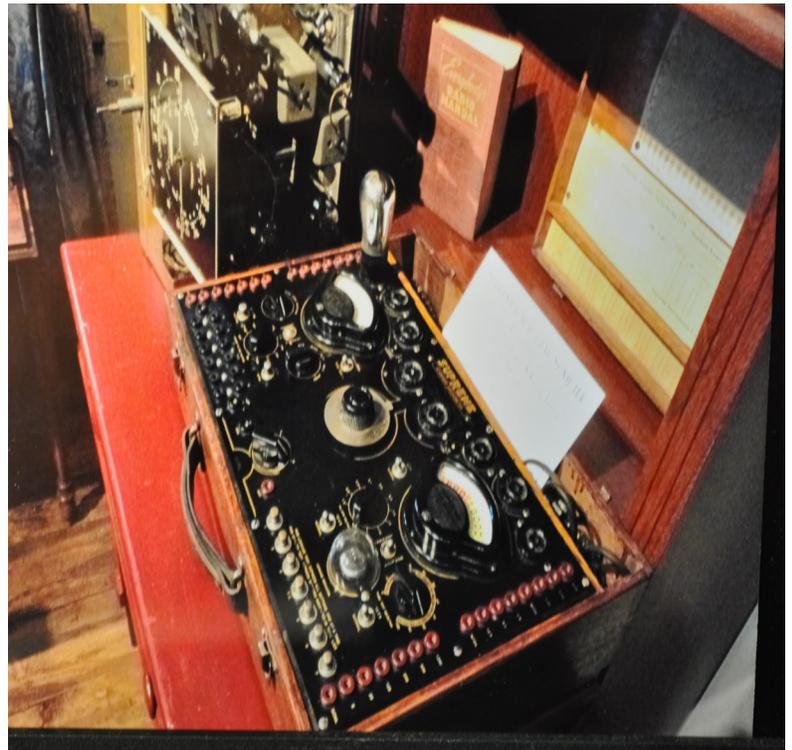
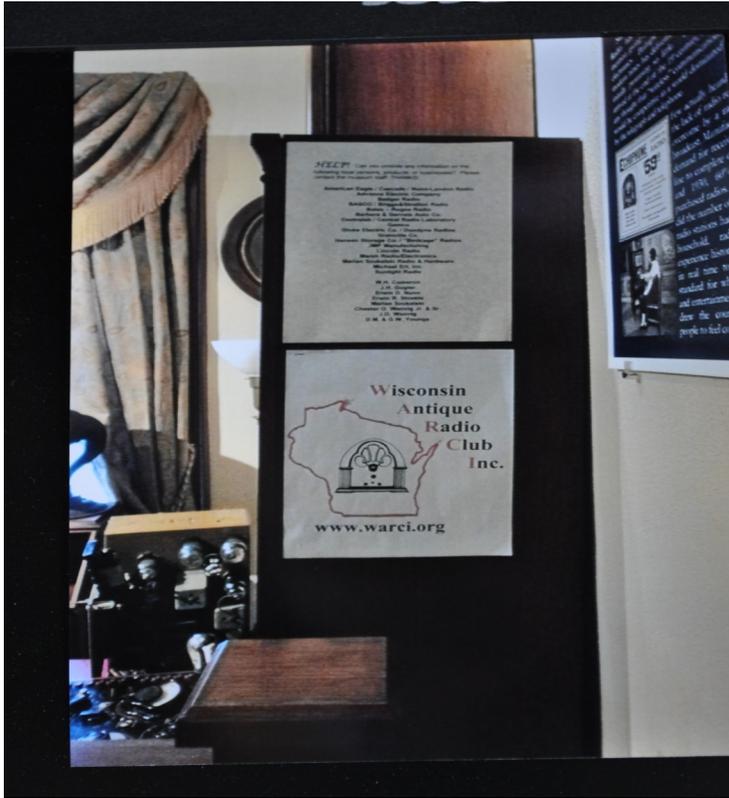
Badger Consignment is an eBay consignment dealer with 12 yrs. experience specializing in high end antique tube radios and hi-fi tube audio components (i.e. tube amps, preamps, receivers, tuners, and much more).

If you have items you would like sold or repaired/restored call WARCI member Ben Bensaid at (262)-581-5453, Ben@badgerconsignment.com or visit our website at: www.badgerconsignment.com

WANTED: by Dale Boyce, Email: radioman@wi.rr.com , 414-840-4146

1. Briggs & Stratton Corporation, Milwaukee, WI (BASCO) Radio Equipment from 1922-1937. Catalogs, Complete or incomplete crystal radios, tube type radios, radio frequency transformers, earphones, tube sockets, crystal detectors, vernier rheostats, fixed resistors, multi-plate variable condensers, fixed capacitors, literature, advertising, parts boxes, Battery Eliminators (Radio Power Units types "A", "B", "A+B"), push-button tuners, promotional items, etc. Please check your boxes of radio parts and your literature files. Also wanted: radios such as Globe Electric, Monroe McKillip and others which utilize BASCO radio parts.
2. 1920's tube type radios, amplifiers and radio parts, parts boxes, advertising, promotional items, etc. made by Allen Bradley Co., Milwaukee, WI.
3. 1920's Crystal radios, tube type radios, advertising and promotional items made by Sunlite Radio, Milwaukee, WI.
4. 1920's Julius Andrae and Sons Co (JASCO) Crystal radios, Radio Catalogs, Radio Equipment and promotional items made by ANDRAE Electric, Milwaukee, WI.
5. 1920's Horn and Cone type Radio Speakers made by Milwaukee companies including: G&G Radio Co, GEMCO, Granolite Art Products, Yahr-Lange, and others.
6. Individual and boxed sets of 1920's Brighton Blue Radio tubes distributed by Yahr-Lange, Milwaukee, WI.

CHUDNOW MUSEUM



(Continued on page 17)

CHUDNOW MUSEUM



Chudnow Museum of Yesteryear

839 N 11th St, Milwaukee, WI
53233



PHOTOS FROM JANUARY MEET



Greg Van Beek and collection of Radios



WARCI Information table



Paul enjoying the nice warm building



West Allis Amateur Club table



Carl's table of stereo amplifiers



Crosley AM Table Radio

Site Plan for the Landmark / Terminal

Thanks to Joe Halser for hosting WARCI Meets

The Landmark 1850 / Terminal facility is used for WARCI's swap meets (except in January) with the kind permission of Joe Halser (and we also enjoy the delicious Pizza that Joe provides).

The Landmark area is used for outdoor meets held on good weather. The Landmark building is open for refreshments.

The Terminal area is used for indoor meets in rainy or cold weather (though some folks may set up in the Terminal parking area even if the weather is marginal).

The facility in use at a swap meet will be open at 7:00 AM. Folks may come earlier to set up for outdoor selling.

Site Plan drawing provided by Dale Boyce.

