

The Signal

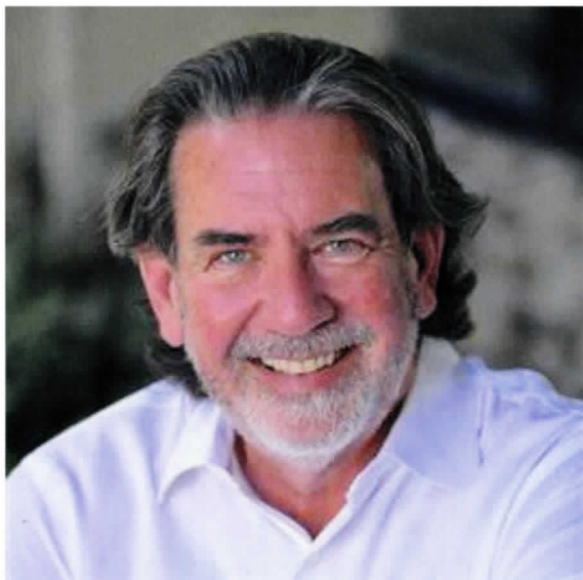
OFFICIAL MAGAZINE OF THE COLLINS COLLECTORS
ASSOCIATION * Q3 2016 Issue #83

Announcing AWA\CCA
Joint Membership Alliance



Rebuilding the 30S-1

From the President's Desk...



Wow – How time flies! Seems like yesterday I was writing my first president's letter and now I am sitting here writing my last. I term out this November after serving as a board member, Vice President and then President. This has been an extremely rewarding experience for me!

I got back into amateur radio after seeing an article on Software defined radios – being in the computer business that looked like fun but soon grew tired of it. Then my attention then turned to Collins, as that was the holy grail when I was growing up – I remember taking the bus as a 11-year-old down to Crabtree Electronics in downtown Dallas and seeing S Lines on the shelf – and they looked like the coolest thing I had ever seen! I realized that I could, now in my now later years, actually possess one and set about getting a 30L-1. That was fun so I decided to add a KWM-2.

It arrived and was soon sitting next to my 30L-1. Turned it on and heard the wonderful audio on 20 meters – amazing – but five minutes later the magic smoke started flowing from the top! Oh well – off to the shop. I soon realized what the problem was and started searching for help (and parts) and ran across the CCA web site and the reflector – little did I know what that would lead to!

After joining the CCA I made my first reflector post and soon received several helpful replies – one from the President (Bill Carns N7OTQ) himself. That lead to a phone call and the problem got sorted out. During our exchanges via phone and email Bill told me to stop by if I were ever in the Wimberley, Texas area. Several months later I was visiting some friends in Austin and decided to take Bill up on his offer. After arriving at his house I was treated to a tour of his large 'shop' building with over 100 pieces of Collins equipment. Any hope of not falling down the slippery slope of Collins Collecting was lost after that tour! Later, over lunch, Bill shared his vision of the CCA and what he and the board were trying to accomplish to rebuild the CCA and provide more for the members. I was impressed.

I soon signed on to help out with some IT issues and then got involved with the leadership. At the same time, I started expanding my own collection and found the resources of the CCA most helpful. What I did not expect was that friendships expanded at a much faster rate than the Collins (my lovely bride swears I cannot have that many friends)! Not a day goes by that I do not hear from some of my favorite people discussing Collins or the business of the CCA. Thanks to all who have welcomed me into the CCA and provided so much support over the last few years.

With the addition of Ron Moser as Treasurer, the board is in great shape and I am sure will bring more improvements to the CCA. Starting at the end of November, Jim Stitzinger WA3CEX – Vice President of the CCA, has agreed to take over as President. Assuming the new CCA board confirms his election, Jim will do an outstanding job. I will be there helping him and work with him in building a new Signal team, web site/ reflector issues and Dayton Booth coordinator.

See you at Dayton (or Xenia) next year!

73,
Scott Kerr – KE1RR
President



Scan to see more about the CCA

The Signal Magazine

OFFICIAL JOURNAL OF THE COLLINS COLLECTORS ASSOCIATION ©

Issue Number Eighty Three - 3rd Quarter

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- Sunday 14.263 mHz at 2000Z
- Tuesday 3805 kHz at 8pm CST
- Thursday 3805 kHz at 8pm CST
- Friday (West Coast) 3895 kHz at 10pm CST
- Sunday 10m AM 29.050 mHz

The Signal Magazine

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From the Editor

On the cover: Bob Hobday, Deputy Director of the AWA, with the Delano Audio Console and the Collins 821A-1 Transmitter.

In this issue of the Signal, we have a two part article written by Bill Carns, N7OTQ – our past President and past Signal Editor. Bill took on the job of rebuilding a 30S-1 for a friend and it turned out to be a huge job! I think this is our first in-depth look at the 30S-1, which actually shows how robust this 1 KW amp is after 50 some odd years of service! Bill shares his experiences of solving some of the problems that one might encounter in restoring one.

I have decided to take a break from the "In the Shack" and leave room for more of Bill's 30S1 article and also leave room for more images from the AWA. As you know, the AWA Museum is now the home for the Collins 821 250KW Voice of the America transmitter that the CCA and the AWA removed from the Delano, California VOA facility. Since I was part of the removal team, I was excited to see the Audio Console and front of the transmitter in its new home. I can say I was very pleased with the way it is featured in the museum and impressed with the amount of work the AWA did to clean it up!

Finally, there is a report on the new AWA\CCA Joint Membership Alliance. This is an exciting opportunity to receive a discount if you are a member of both organizations, and gives the CCA a tremendous amount of exposure to the larger AWA membership. Also there is an update on our upcoming board elections. As Bill used to say – Enjoy!

Editor in Chief,
Scott – KE1RR

Electric Radio Magazine Serving the Dedicated Collector



Electric Radio magazine is published monthly for those who appreciate Vintage military & commercial radio and the associated history.

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30S-1 Bias Supply Overhaul

By Bill Carns, N7OTQ

Forward

I think all of us enjoy opening up a piece of Collins equipment and finding the appearance totally factory original. I know that I do.

Time is now taking its toll - and more and more we find that when opened up, we are looking at modern yellow or blue electrolytics and modern silicon diodes. Although some would say that I am some kind of nut case, I always smile when I find that clear sign of originality and Collins workmanship still in place. I will go out of my way to save and reform older electrolytics and I never cease to be amazed when I test components that have been removed on a preemptive strike by someone else, only to find them good as new.

The reality, though, is that some components do age, and sooner or later they need to be replaced. One such part is the venerable Selenium Rectifier. In their best hour - and original state - they were not a real good diode when looked at and compared to modern silicon parts. In fact, even the best Selenium diodes age and have a known degradation with time.

The Sarkes Tarzian Model 50 selenium diodes that were used by Collins in the 516F-2 and 30S-1 bias supplies are now pushing 50 years old or more - and most have started down that degradation slope. However, there are a lot of them out there that still remarkably look very good. More on that later.

Recently I was helping a friend repair his 30S-1 and one of the issues was the bias supply. You could just barely get the idle current set back to the book specification and the bias pot was at the end of its travel more or less. Obviously it was time to do a little rebuilding and snooping to see what had changed. This article is the story of that repair (as well as a tutorial on the Bias & Relay Shelf removal). During that repair I decided to try and make myself feel better by "saving" those nifty 50s looking Model 50 diodes.

So, read on and see what ensued. Take a look at the outcome. Those new "Model 50s" will live on a long time and show their charm to several new owners over the coming years.

And, No Torrey, I am not going to see a psychologist.. I tried that and it did not help even one little bit.

While the main purpose of this article is meant to be the proper access and overhaul of the bias supply components that age in the 30S-1, contained herein is also the correct technique for removal of the shelf from the main cabinet in order to work on any portion of that relay shelf and circuit area.

This could include execution of SB-1, replacement of any of the wired-in relays, or replacement of any other relay shelf related components. We often see workmanship that is less than stellar which results when people attempt to work under that shelf with it left in place. While the removal looks like it is a daunting task, it in fact was well thought out by Collins and is not that bad. In fact, once you know how to remove and care for it while "loose", then it is not a huge task to get it out where you can do good work.

This all started when a friend called me asking for help with a 30S-1. He brought it down to my shop, and that day we found several problems that had resulted from previous shoddy work. By afternoon we had the amp up and running. Nice 30S-1.

Unfortunately, once we had adjusted the bias for the idle current, I observed that the potentiometer was all the way at the end of its run - and just barely allowing the tube to be cut off down to the point that the idle current was low enough to be where it belonged.

This indicated to me that the bias supply negative voltage was not up to full required level of about -100 volts coming out of that little simple supply. A quick check of the configuration showed that a.) The 50 ufd 150WV filter caps were original & b.) The rectifier diodes CR207 & CR208 (as well as the soft start diode CR205) had 1N4007 diodes just strapped across the terminals of the original selenium diodes. It was evident that the wiring had never been removed from those selenium rectifiers, so no one could have ever tested or assured that they were not leaky.

I was looking at a scab-on job where the leakage from the original selenium rectifiers was still in play and thus (along with potentially bad caps) the lower bias output. I am being hopeful that the transformer is not damaged somehow. The shelf has to come out and some parts removed and replaced.

Figure 1 below shows the shelf in place and you can see those parallel installed diodes. Bad plan.



Figure 1. Rear of Relay and Bias Supply Shelf

SHELF REMOVAL

Begin with some protective strikes: Believe it, or not, that shelf is designed to come almost all the way out of the cabinet for maintenance.

1. Remember to disconnect the AC power input before starting this work!
2. Remove the HV rectifiers, the time delay tube K202, V203 (ALC) and all of the fuses and fuse covers. Keep those fuse covers straight (as well as the fuses) as to where they came from. Some covers do not fit all holders, especially if a fuse holder has ever been changed.
3. Remove the AC Mains cover (I hope you still have it - or you should make one!) and remove the AC Mains wiring and fold it down out of the way. Document the color codes & position before removal.

Taking out the shelf for maintenance:

1. Look at the rear underneath lip of the shelf and you will see two sheet metal screws coming from the rear outside through clear drilled holes in the case and seating into the shelf rear lip. Note these are sheet metal screws and use all the precautions regarding over tightening (and restarting) when they go back in. Keep all screws identified and

where they will go back where they came from. Eyeballing where they are from the inside, carefully go around to the back and make sure you are working on the same two screws. Loosen them about half way out but where they are still holding the shelf.

2. Now, come around to the front and remove all of the outside panel attach screws (There are 5) except the upper right side screw. Just loosen that about half way.

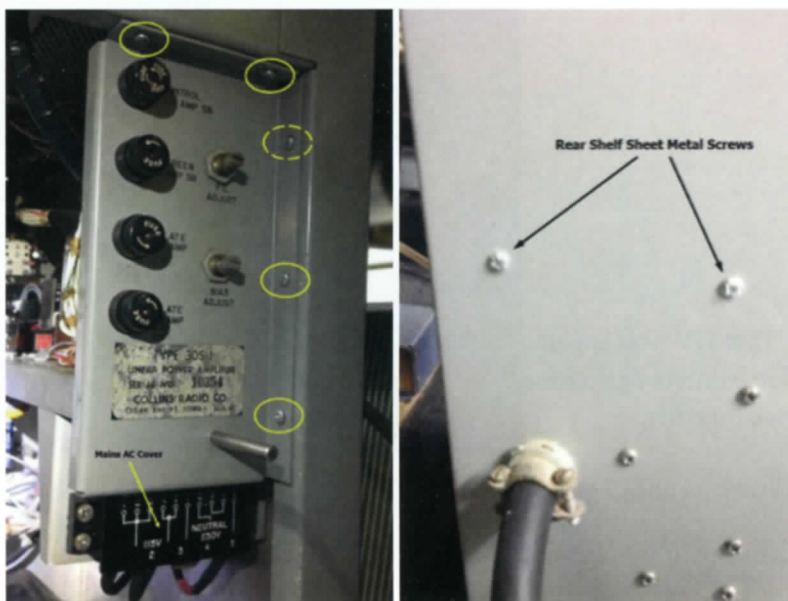


Figure 2 and 3 to the right (respectively)

3. Now, go around to the rear and remove the two rear inner lip sheet metal screws that you loosened before. The back of the shelf will fall down a bit but not far (held by harness and the front screw.)
4. Go get a nice big and soft bath towel and fold it in quarters and lay it in on top of the choke/cap/rectifier area.
5. From the front and, while holding the front of the shelf with your left hand, remove the last upper side screw and the shelf will drop down more in the front.
6. Carefully slide the front of the shelf/panel to the left while clearing a bracket and HV wire that will be revealed. Pull it forward a couple of inches where you can keep it there. I used another smaller towel folded between the cabinet frame and the right edge of the shelf assembly to protect both.
7. You will be looking at a High Voltage lead that goes to a screw terminal on the door "dead fall" shorting switch S206. That screw that holds the HV wire on the switch terminal bar is threaded into the bar so you can just temporarily remove the screw without worrying about a blind nut falling down somewhere. Remove the cable and then restore the screw in the threaded hole.

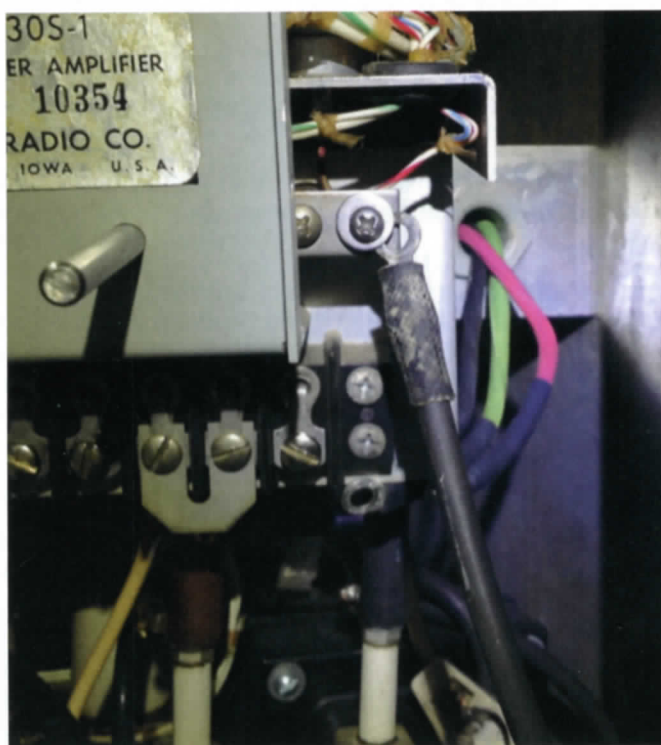


Figure 4. High Voltage wire here shown already unbolted and just clamped for picture

8. That HV wire is going to want to flip back and hide behind the frame. Before it does that put about a 6 inch piece of blue painters tape around the cable up where it will show, so you will not forget to hook it back up when this all goes back together.
9. Now, go ahead and pull the shelf out until the face of it is about 4 or 5 inches in front of the cabinet frame.

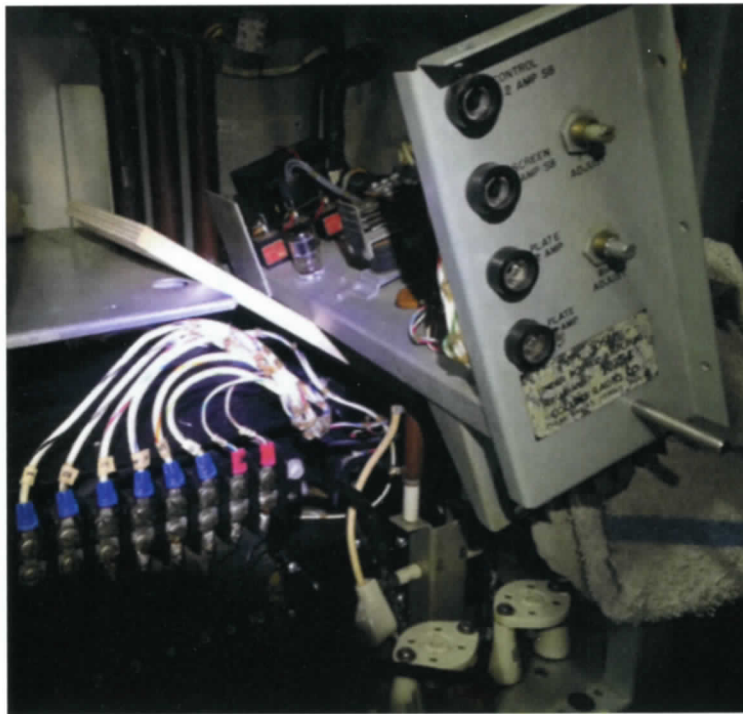


Figure 5. Shelf in position 4 or 5 inches out from frame & before harness release

10. harness (that is keeping the shelf from easily coming forward any further) is running behind that intake air sheet metal that forms the right lifting handle. There is a cable clamp holding the harness back in that corner. We are going to take that off and it is not as bad as it looks.



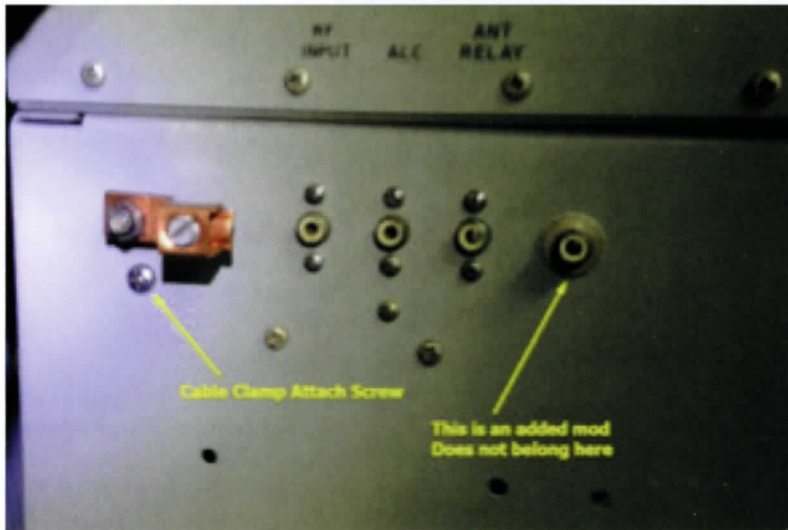
Figure 6. Rear Harness Cable Clamp & Attachment Nut

CLEARING THE HARNESS

11. Look at the little relay mounting bracket that is just to the right of the bleeders up high. Identify the screws (more sheet metal screws) and go to the rear and remove the two screws which will let that relay bracket drop down on its wiring harness. Now you can move it slightly to the left as you work in there.

12. You are going to need a partner for the next step and also to replace that relay bracket and replace the cable clamp that we are about to take off. If you do not have a partner, then DO NOT take that relay shelf out and DO NOT take the cable clamp off. Just work on the shelf where it is.

13. Have your partner identify the larger Phillips head screw that is just under the ground stud on the rear of the amplifier on the left. That large Phillips screw goes to the cable clamp.



14. Recommendation! Get another very light medium sized towel and tape it about 4 inches below the nut on the inside. Tape it across the back and then across the side so it makes a catch basin for the nut and washer. Let it rest on the protection towel you already have in there. You will be glad you did this. Looking for that nut back there is a booger and it is stainless so a magnet does not work well.

15. Also, take a felt tip marker and put just the smallest line on the harness above and below the edges of the cable clamp so that you can get it back where it belongs during the reinstallation work. This will ease the re-installation.

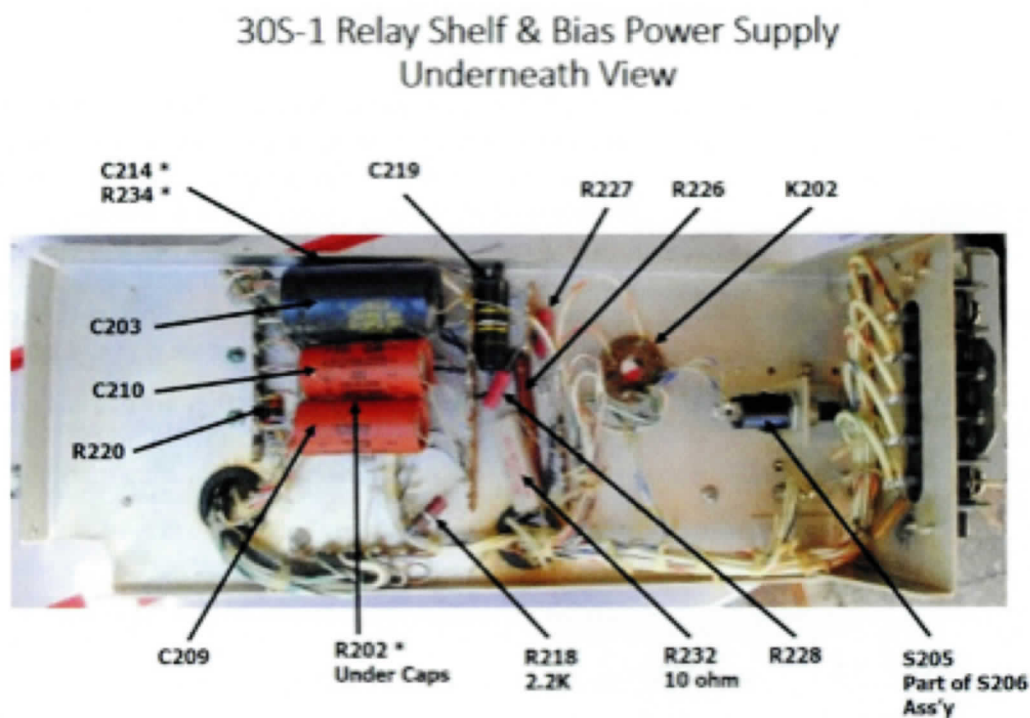
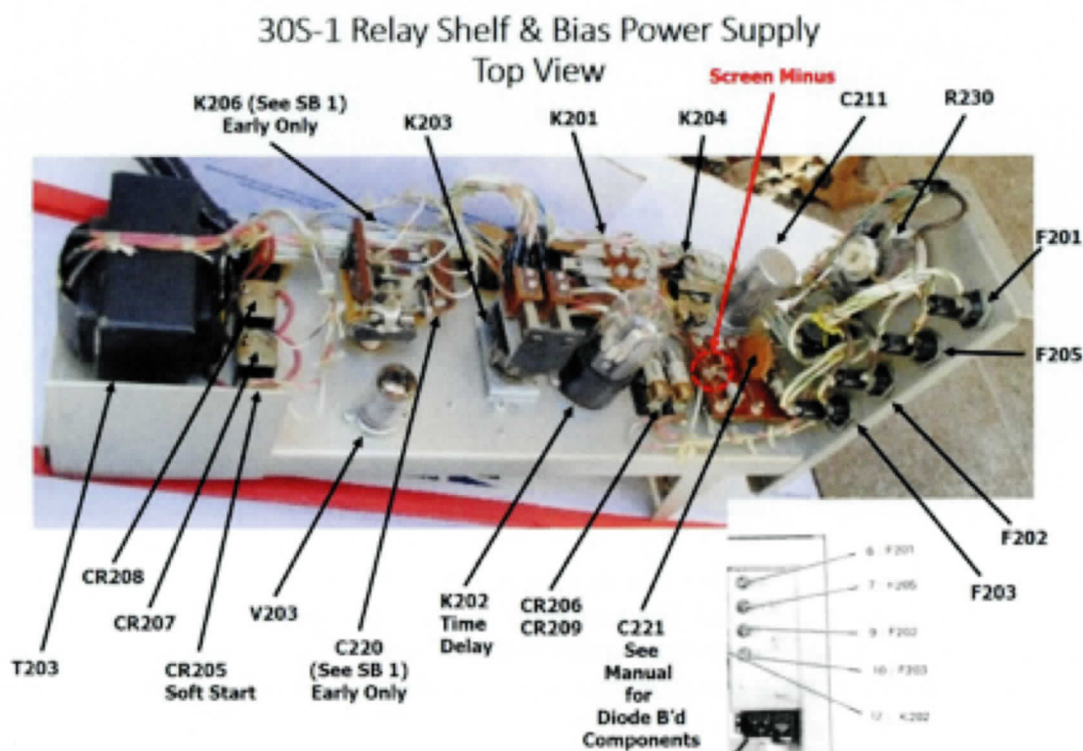
16. When you are ready inside to keep that nut from spinning (and to capture the nut and washer) have your partner unscrew the Phillips screw until the nut, washer and cable clamp release.

17. Now, making sure that the harness comes out from behind the vent, you can move the shelf on out where you can easily turn it over on either side and work on it.

The shelf is now out where you can work on it and you are ready to start the bias supply repair. Figure 8 shows the shelf pulled all the way out (about 50% out of the cabinet) and resting on its temporary "bench" that spans from the 516F-2 shelf to a cabinet bracket on the right inner side panel.

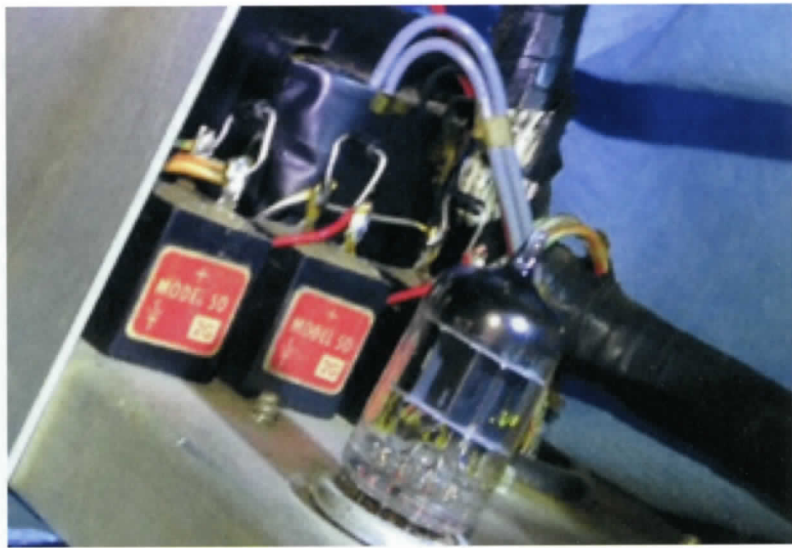
For completeness here, I am also presenting better component placement figures than are available in the Collins manuals. For some reason, the manuals do not even show a bottom view of this shelf.

My thanks to Chris Farley, KC9IEQ for taking these good pictures of an early pre-SB-1 30S-1 shelf. Note that if you have an early 30S-1 that has had SB-1 accomplished in the field, there will be a terminal strip mounted in one of the removed K206 mounting holes. If you have a post SB-1 production 30S-1, there is no terminal strip required and the harness was redone to just run the wires on through.



* Indicates hidden below other components

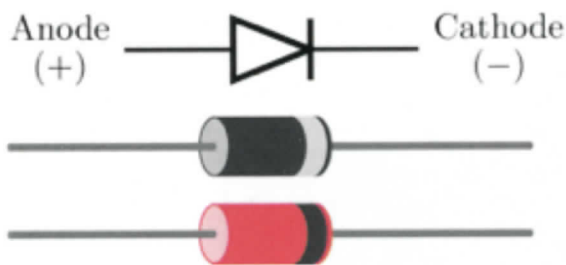
Figure 8. Annotated front view showing the shelf pulled as far out as it will go ~
Shown resting on a temporary rear wood shelf and front Styrofoam prop.



The amplifier is working well, but the bias control is at its maximum full CCW negative bias setting and the tube is just under control at an idle current of 150 mA. The area shows signs of previous work. Parallel 1N4007 diodes have been added right over the top of the selenium rectifiers CR207 & CR208. This is not a good practice as it leaves any leakage and compromised diode characteristics in place under the good characteristic of a new diode.

Important background: Don't fall into the "Polarity Traps" of an older selenium rectifier and/or a "Negative Bias" supply.

You should make note of a fossil marking tradition that dates back to the early days of electronics. If you look at any modern diode, there will be a band around the cathode end of the diode indicating that this terminal should be kept negative for forward conduction to occur.



Be aware that early selenium rectifiers were marked just the opposite. If you look at the red leads (secondary of the bias transformer T203), on the schematic for the 30S-1, they go to the cathodes of the two rectifier diodes, CR207 and 208. This is as it should be for a negative supply. BUT, if you look at the actual original selenium rectifiers in the amplifier, you will see that the red transformer secondary leads actually go to the terminal of the rectifiers that is marked with the + sign, indicating what would be - in modern

convention – the anode. This is because the older diodes were marked opposite to how they are marked now – if a plus sign were to be added on a modern diode. This "polarity" marking anomaly carried on well into the 70s for the selenium rectifiers. Early semiconductor diodes from the very early 50s also carried this confusing marking. By the 60s, semiconductor diode marking had sorted itself out – thank goodness.

As a result, when working on any original selenium rectifier supply, be very careful how you install the selenium rectifier and also do not get caught in the "reversal trap" when replacing the selenium with a semiconductor diode.

Also note that, because this is a negative supply, the filter capacitors C209 & C210 have their positive leads in common at what would normally be ground on a normal negative bias supply, BUT – in the unique 30S-1 screen supply and control grid power supply relationship - the screen (+ end) is at ground and the 4CX1000 cathode is at minus screen supply. This means that the control grid bias (common filter capacitor point) must be returned to the Screen negative supply point.

Note (as mentioned earlier) the fact that the red transformer secondary wiring goes to the close terminal on the + marked close side of the rectifiers. They are correctly installed – less the fact that someone overlaid new diodes on the old.

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Look at the schematic and read the manual if you do not understand this supply relationship. It is almost impossible to troubleshoot a 30S-1 amplifier if you do not clearly understand what Warren Bruene did with those power supplies. It's beautiful.

Getting back to the supply repair – Unfortunately we are not going to know what is really (for sure) causing this reduced DC bias voltage until we repair the diodes and replace the filter caps. Only at that point will we know if there is some damage to the T203 transformer windings.

One other possibility is if the resistor ratio of R218, R219 & R220 has aged and changed – contributing to the reduction of available negative bias. That was very hard to check before, but now that the shelf is pretty much out in the open, let's take a look... Well, unfortunately – it ain't gonna be that easy. R218 and R220 are within tolerance and both measure just about 8% high. Since both are high, this is not significantly contributing to the problem although it is making the available range a bit less and this does not help.

There are two paths to go down here. The three selenium rectifiers can be removed entirely and the holes used to mount a 6 lug insulated terminal strip. Then, the wiring can be put back on the terminal strip and the 1N4007 diodes correctly installed on the terminal strip. This “first path” leaves the amplifier looking very unoriginal in the bias supply top view. I do not like that – being the purist that I am.

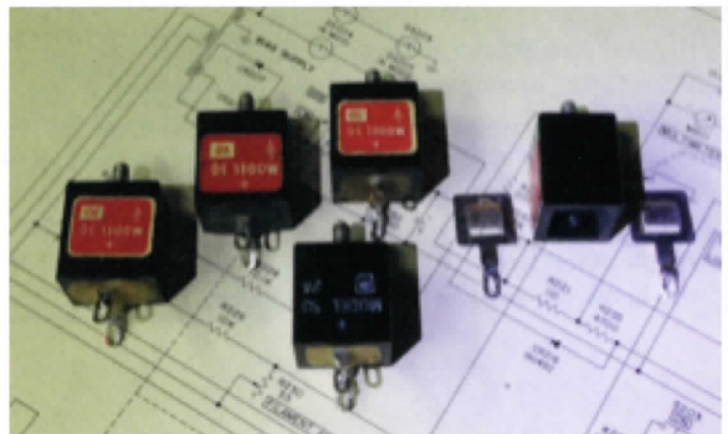
So, regarding the repair, we are going to take the “road less traveled” – or the second path and rebuild the selenium rectifiers so that they look completely original. It is not all that hard to do.

As long as I am in here I am also going to take a hard look at the filter caps C209 and C210. Again – it's worth repeating, note polarity. As I said, since this is a negative supply, we will be returning the common plus end of the two electrolytics to the negative screen supply tie point.

About those selenium diodes: Referring to the photo below, you can see that the original selenium (CR207 & CR208) is

contained and potted into a Bakelite black housing that has an embedded stud mount on the bottom and a cavity revealed on the top. The picture below shows several styles of the original Sarkes Tarzian Type 50 diodes as well as the same diode type after the innards have been removed. To the full right you can see the salvaged contacts that will be reused to solder in, and hide, the 1N4007 before we re-pot the cavity with a newer epoxy.

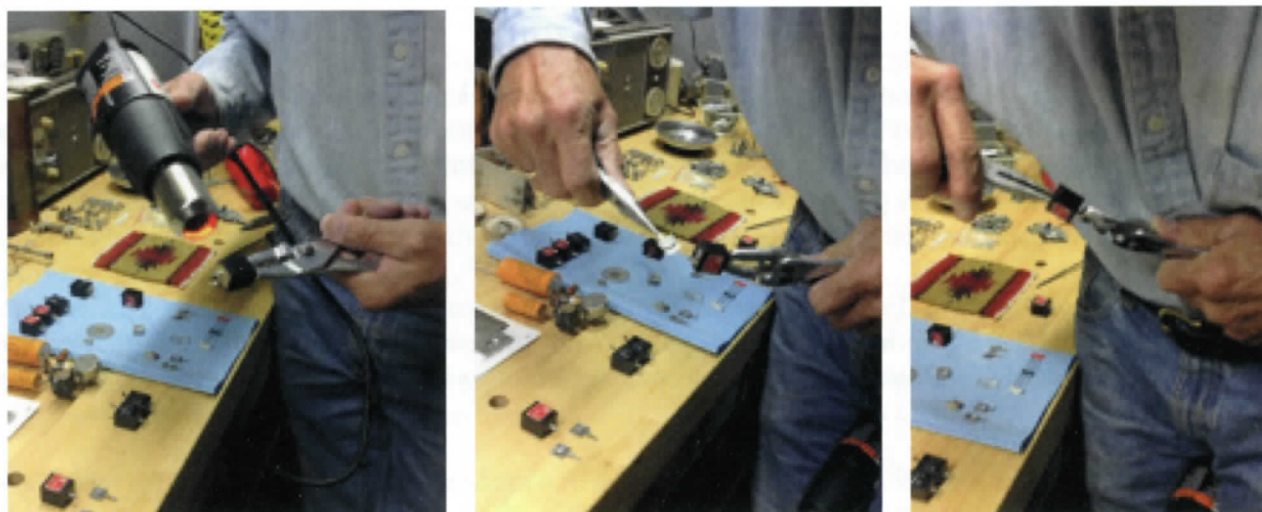
Note: if you try and test these selenium rectifiers with an ohm meter as you might a modern diode, be aware that the forward voltage of a typical



single selenium layer is about 1 volt at room temperature and the reverse breakdown is about 25 volts. To get the required breakdown for this application the Model 50 uses 8 "diode plates" for a breakdown of about 200V and thus a forward somewhere around 8 volts. This forward knee is pretty soft, so if you make a test pass with a VOM that uses 2 cells for the OHMS scale, then you are going to get some meaningful data – sort of. If you use one of the cheaper VOMs, and it uses just one cell for the OHMS scales, then all you will see for the S.T. Model 50 we are talking about is what appears to be an open diode.

With all but a few of the very late Type 50 diodes that were potted with a more durable epoxy, the originals – and in all likelihood the ones you will be working with - will have the much softer original potting compound that is thermally unstable over about 50 degrees C. My thanks to Scott Johnson, W7SVJ for this info.

So, put a nut on that stud and use it to hold the diode with a pair of pliers. Then use your heat gun up close and personal (don't be afraid to toast the case) and heat the entire case up. Keep bringing up the temp and after a few minutes start tugging at one of the contacts with a pair of needle nose pliers. That potting compound will get powdery and lose its strength. It will not flow, but just give up the ghost. Pull out the contact straight up and work on the second one while you keep applying the heat. In the process of pulling the contacts out to be saved for later, the entire potting compound "cap" will usually just pop off.



After you have both contacts out and the top compound popped off, you will be looking at the selenium laminated (or layered) structure. Take the needle nose pliers (use fine ones) and grip down on either side of the pile of laminates and pull the entire structure out while the case is still hot. At this point you will have an almost empty cavity. Stop heating and start cleaning the cavity out - first using a small screwdriver and then a small pen knife blade. Almost all the powdered compound will come out. Now, it's time to put the new diode back together.

Here is a handy guide for keeping the temperature in the correct range. Bakelite blisters and starts to break down at 190 °C. The potting compound used on almost all of the Sarkes Tarzian selenium rectifiers breaks down at about 60 °C. If you touch something that is 50 °C, you can touch it, but not for long. If you touch something that approaches 100 °C, you will not be able to stay there at all. As you start heating the case of the old rectifier, stay away from the label side and rotate the diode through three sides starting with the gun about 5 inches away. Heat for a couple of minutes trying for absorption and soak uniformity. You do not want to get just the outside case hot. Then after a couple of test feels that will tell you where you are, close the distance down to about 2 inches and rotate faster. When you know you are over 50 °C, start pulling parts out.



Finish cleaning up the salvaged contacts by carefully warping them enough to pop out the locked-in old compound and then carefully bend them back so that they are flat. Leave the little leaf sticking out and parallel to the entire contact blade. If you have not already done it, use solder wick and remove any excess solder or wire from the lugs.

We are going to solder in a 1N4007 in such a way that one lead goes around the little pop-out locking blade close to the bottom of one blade and then the other goes around the other contact blade close to the top. All wires and the diode will be down in the cavity - soon to be buried in new epoxy. Form the leads so that the contact blades are just a hair wider than the cavity's short direction, and the diode is positioned from lower front to upper back diagonally across the cavity as shown in the next figure. Use smooth bends when forming the diode leads as this makes the assembly easier to adjust for width and parallel contact lugs. Solder it up and then test fit the new diode contact assembly in the cavity. Remove it and set it aside. Observe the photo of the diodes being soldered for approximate lead length. Too short is worse than a bit too long.

Now, make sure there is a little tension that will hold the diode where it belongs and lay it aside for insertion after you prepare the epoxy and pre-coat the front and back inner sides.

Note: To be consistent with the older appearance and case/markings convention, we will be installing the new silicon diode (1N4007) with the cathode marking band on the + marked side of the case (paper label side for those with labels). I am also putting a sticker on the inside lid of the 30S-1 where it will be seen to document what has been done.

Maintenance Record:
Bias Supply restored March 2016 ~
Includes rebuild of S.T. Model 50 Selenium
Rectifiers. Original diode structure replaced
with 1N4007 Silicon Diode internally.
MARKINGS for polarity & install polarity
left original as per the selenium markings
~ Note: + is the Cathode ~ K9CXX

To be continued in the Fourth Quarter Edition...

CCA Board Elections

There are two CCA Board positions that will be open this year.

The first is the position held by Jim Green WB3DJU, who was our Treasurer. Ron Moser K0PGE, was appointed to that position after he stepped in as our new Treasurer when Jim Green retired. Jim served quietly for many years in several positions in the CCA and we all owe him a debt of thanks. We are excited to have Ron, a CPA, in charge of our books and he is running now as an elected Board member.

The other position is mine, Scott Kerr KE1RR. I have served as an appointed board member, then elected for two terms and served as Vice President and now President. According to our By-Laws, I have to step down for a term before I can run again. Board members are elected and then the new Board will elect a new President, Secretary and Treasurer. Jim Stitzinger WA3CEX, has agreed to lead the new Board as President, Ron as Treasurer, Dennis Kidder as Secretary and Jim Hollabaugh as Net Manager.

If you have an interest in joining this team, then please contact me at skerr@trackersoft.com and we can discuss your involvement. The CCA is always looking for new energetic leaders that want to be involved and share the workload.

Collins Collectors Association and Antique Wireless Association form Alliance

The CCA has entered into a Memorandum of Understanding with the AWA to form a AWA\CCA Joint Membership Alliance. For a few years the CCA and AWA (<http://www.antique-wireless.org/>) directors have talked about offering each other's members a discount if you wanted to be a member of the other's organization. This September, the CCA board approved a Memorandum of Understanding signed by both the AWA and the CCA to give a five percent discount to members wanting membership in both organizations. We also agreed to promote each other's organization to our members on the web and in print.

This is a huge benefit to the CCA both in the exposure to a large audience and the provision for a discount to our members in a quality organization with very worthwhile goals. Our website (<http://collinsradio.org/>) has now been changed so that you are able to take advantage of the discount. Thanks to both Bill Carns – N7OTQ and Jim Stitzinger – WA3CEX for their work over the last few years to make this possible!

de Scott KE1RR

AWA REPORT

For several years, the CCA has been building a relationship with the Antique Wireless Association (<http://www.antiquewireless.org/>). The first real project that the two organizations did together was the removal of the Voice of the America 250KW (1 Million Watt peak) AM transmitter from the Delano, California VOA site. The transmitter is now on display at the AWA Museum located just outside of Bloomfield, New York.

Following that, the AWA has held a Thursday night banquet during their annual August conference, held at the RIT Conference Center in Henrietta, NY – just outside of Rochester, NY. For the last three years we have been invited to give the after dinner presentation. Bill Carns and Jim Stitzinger gave the presentations in 2014 and 2015 and I was invited to speak this year. Although I was still on the mend from surgery this summer, I can say that it was a really fun weekend.

If you have not been before, I would highly recommend this event to any ham. There is, of course, a flea market that had a good representation of both boat anchor and newer equipment. Since the focus of the AWA is beyond ham radio and includes all forms of wireless equipment, there were some wonderful restored classic floor standing and table top radios on display and for sale. There is a contest with radios, and test equipment displayed in a separate room – and our former Treasurer, Jim Green - WB3DJU won first in the test equipment category with one of the prettiest old Volt Meters I have seen.



Jim Green's winning Volt Meter

Bob Hobday, Deputy Director of the AWA drove me over to the AWA museum for a tour. Wow, was I impressed! On display were working spark transmitter's, a full Western Union station, complete replica of the Titanic radio room, radios and TV's from almost every era and, of course, the VOA transmitter along with the Delano audio and control console. Words are hard to come by to describe the breadth of the equipment displayed. Space will not permit me to put in enough pictures to truly capture the experience but if you are ever in that part of the country it is well worth the time to stop by the Museum!

The Collins Banquet on Thursday night was well attended and reminded me of our own CCA Dayton Friday night banquet. The audience was a mix of Hams, SWLers and a few CCA members. I spoke on Collins Company during the WWII years and the talk seemed to be well received. There was also another Banquet on Friday night focusing on Zenith Radio Company. Again, a great weekend and highly recommended! The AWA is a larger organization than ours with a broader focus along with the ability to physically display some fascinating pieces of wireless history. See the companion article on our support of the AWA.

de Scott Kerr, KE1RR



Antique Wireless Association











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