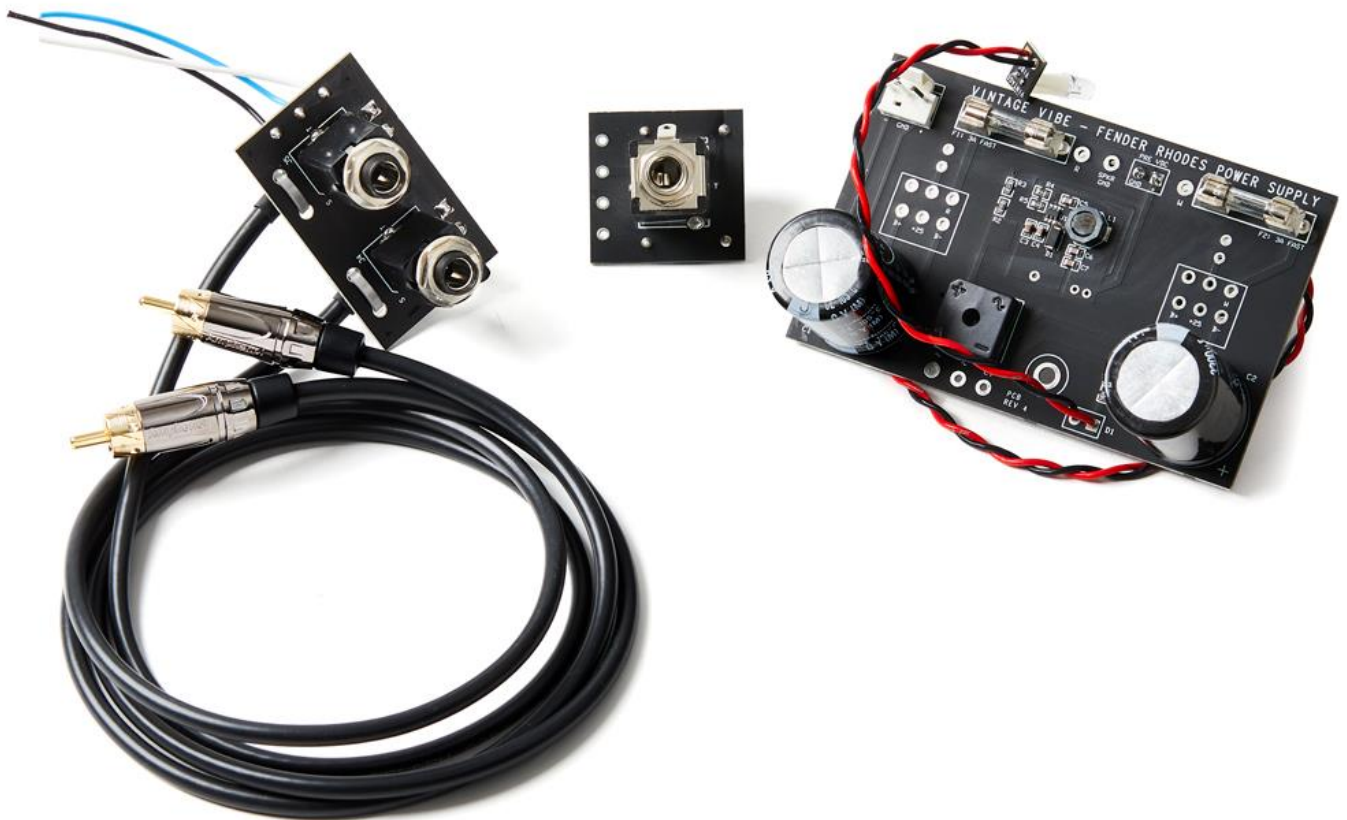




**VINTAGE VIBE
4-PIN RHODES SUITCASE
POWER SUPPLY REBUILD KIT
INSTALLATION INSTRUCTIONS**



We highly recommend reading through the installation instructions in their entirety before beginning an install. This will provide an overview of what is involved and perhaps offer some tips / ideas that you may find helpful.

You may notice some variation between your unit and that pictured in the installation instructions. Wherever a difference may be relevant we have done our best to make note of it within the text.

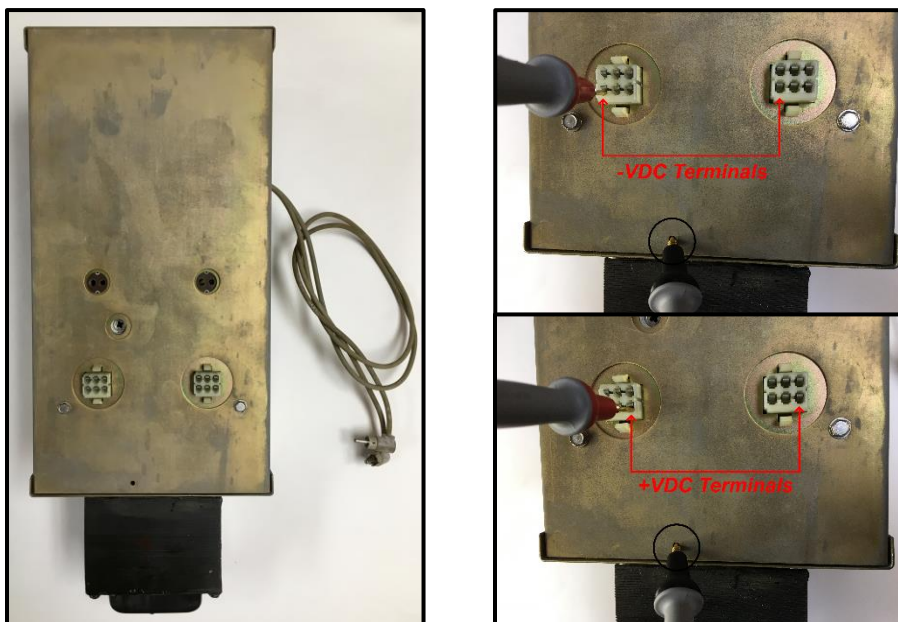
If, after reviewing the material, you are not confident in your ability to successfully perform the installation, we recommend that you contact Vintage Vibe to discuss having us perform the service for you or a technician that you deem to be qualified.

Note:

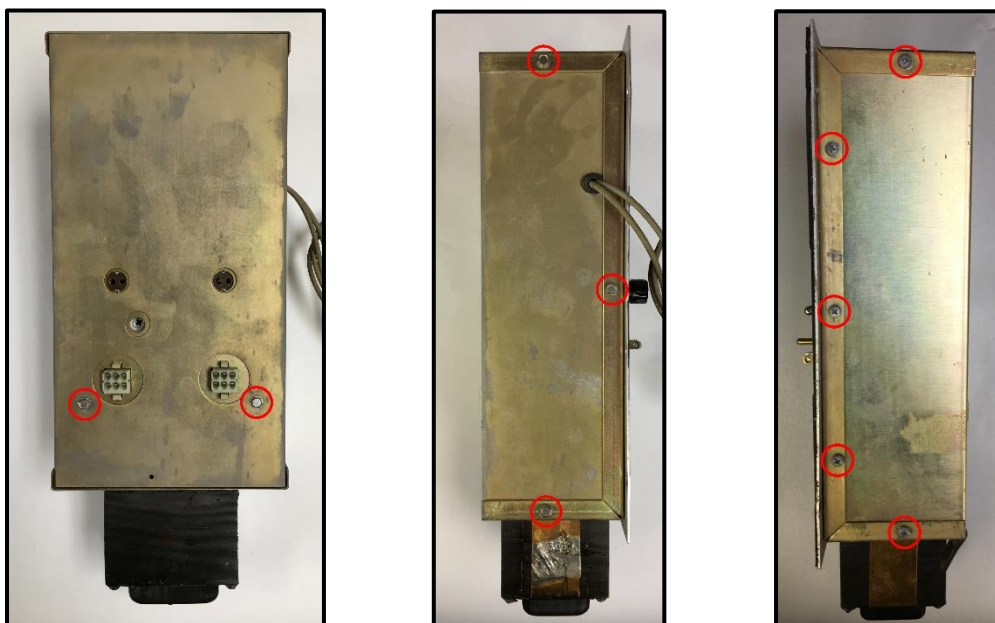
Improper installation or use will void any and all warranty. Installation of this product is performed at your own risk. Working on electronic equipment poses an inherent risk to oneself, others and personal property. Vintage Vibe assumes no liability for the consequences of the attempted installation of this product.

INSTALLATION INSTRUCTIONS

1. Ensure that the power supply is drained of all stored voltage.
Measure +Vdc and -Vdc terminals with a DC voltmeter referenced to chassis.
Confirm the readings are 0VDC.



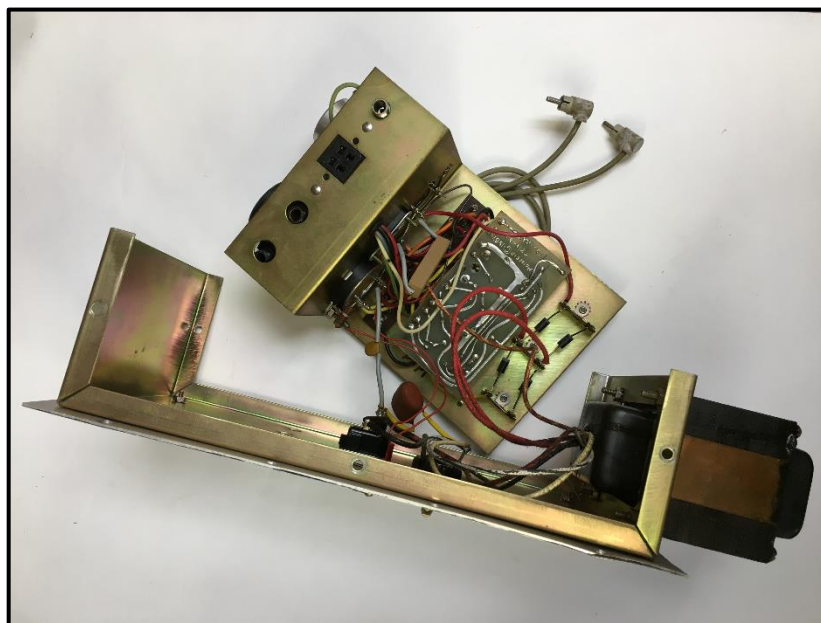
2. Remove the screws that secure the enclosure back panel.
*These were originally 1/4" Hex Head, but may be different on your unit. Also, the number of screws may vary. All units will have two screws on the back panel. Early units had three screws on each side whereas later units had five per side.



Remove the back panel.

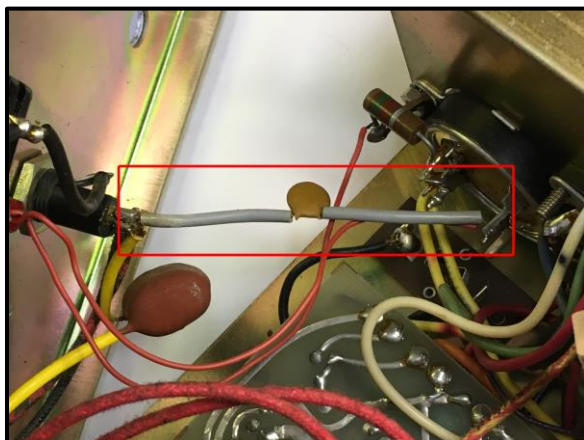


3. With a 1/2" nut driver, remove the nuts securing the three 1/4" jacks to the front panel. This will allow the internal power supply chassis to be dropped back from the main enclosure.

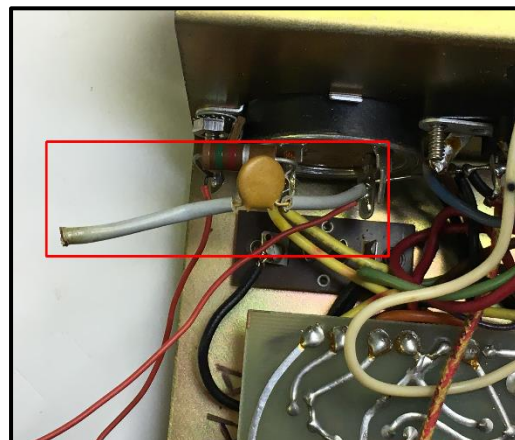


4. Some units may have a "Death Capacitor" that should be removed. If present, this capacitor will most likely be soldered between the fuse holder and the grounding bus bar. Simply cut the lead at the fuse holder for now.

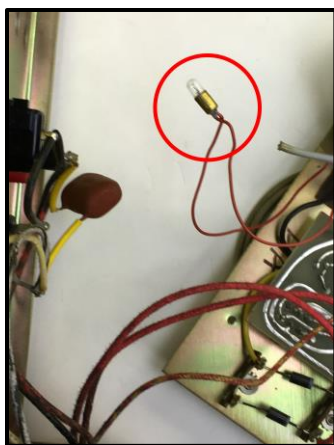
Before:



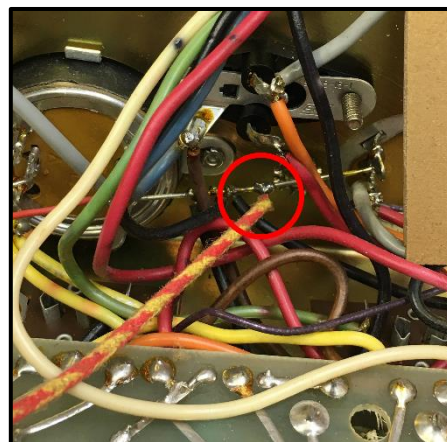
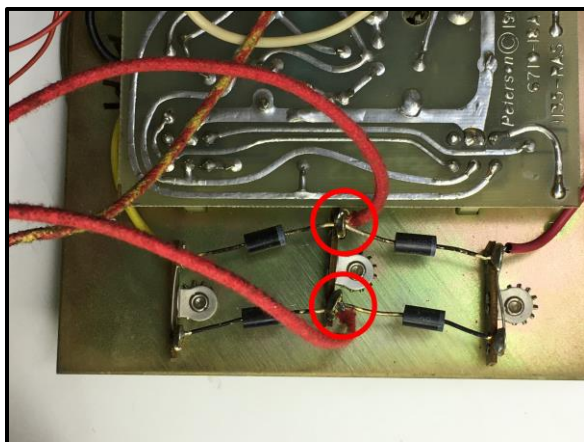
After:



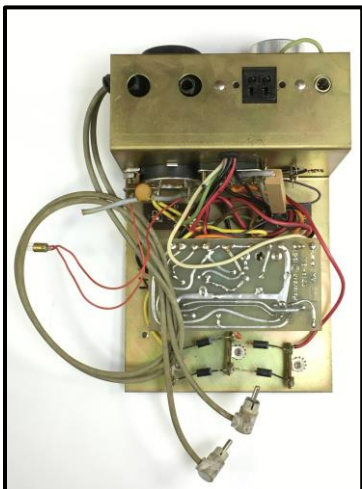
5. Pull the indicator bulb out of the red lens.



6. Clip the red power transformer secondary wires at the rectifier diode terminal strip and the red/yellow secondary center tap wire at the grounding bus bar.
*Cut the wires close to preserve their length.



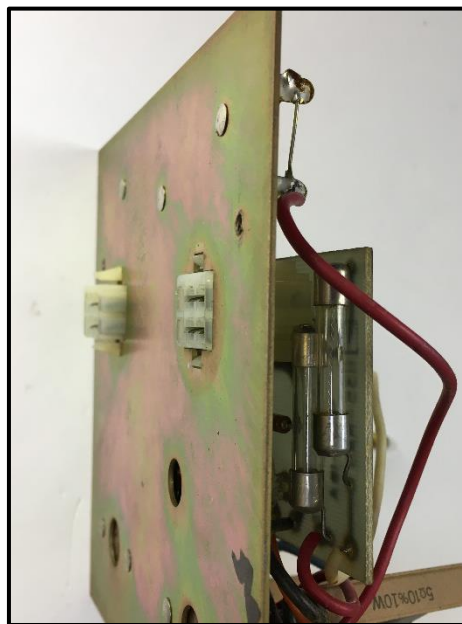
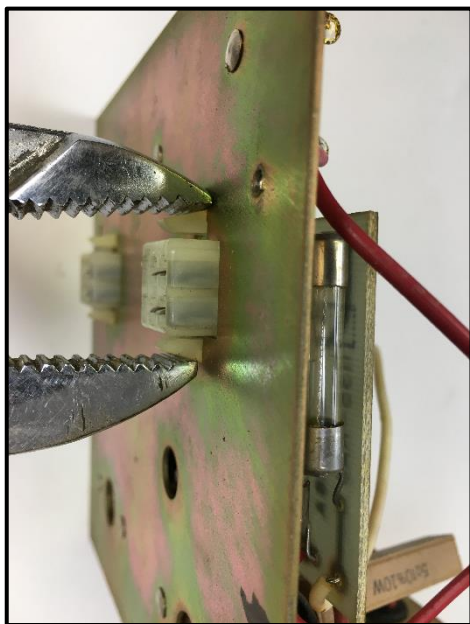
The power supply's internal chassis can now be separated from the main enclosure.



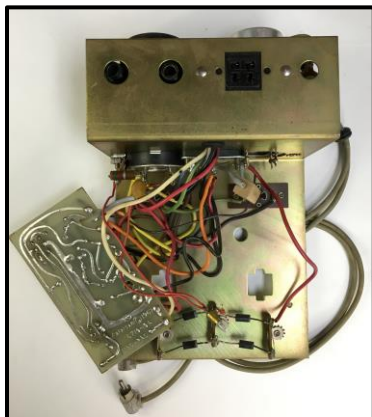
*If you are installing a new faceplate, now would be a great time to pull out those instructions and take care of that task.

7. Remove the Molex socket connectors from the chassis.
**This must be done very carefully as the connectors are no longer manufactured and need to be re-used later in the installation.

We recommend using adjustable channel lock pliers to gently grip against the locking tabs and squeeze until compressed enough to allow the connector to push through the chassis panel.

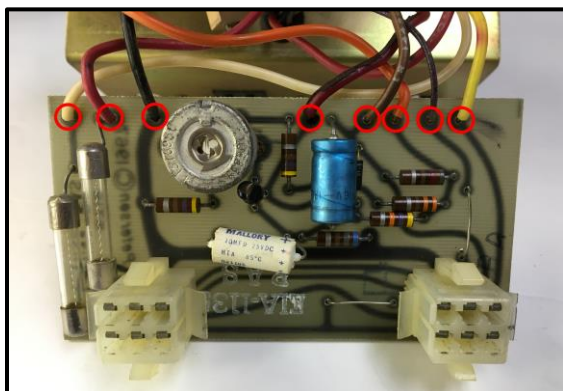


The PCB can now be lifted away from the chassis.

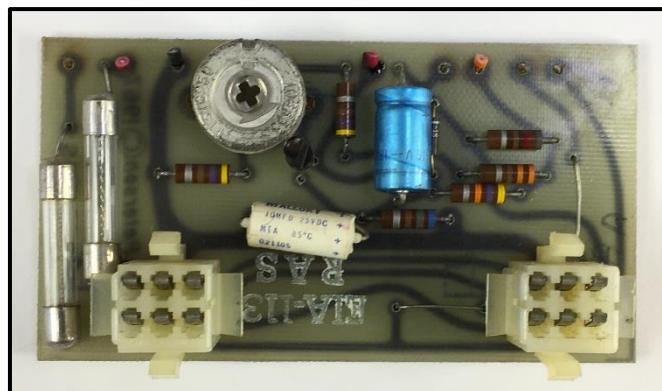


- Cut all eight wires at the PCB.

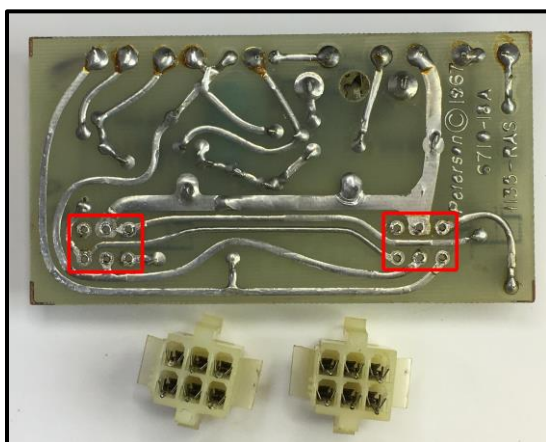
Before:



After:



- Desolder the Molex socket connectors from the PCB.
**Take great care not to damage the connectors or their pins as you will need them later in the installation and, again, replacements are not readily available.

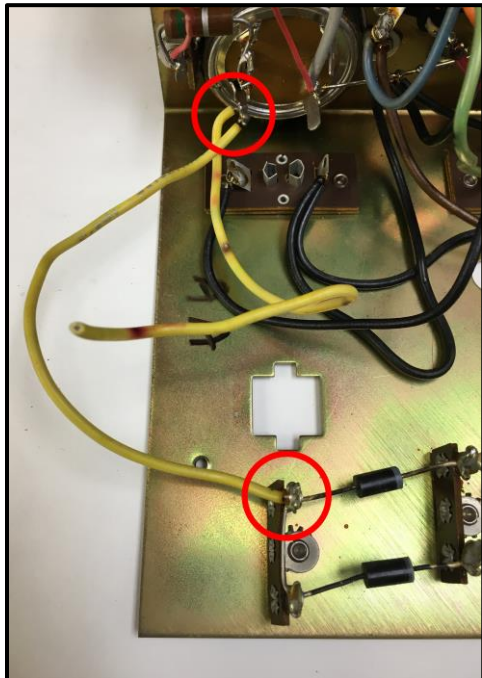


Set the Molex socket connectors aside. The PCB can be disposed of or kept, as desired.

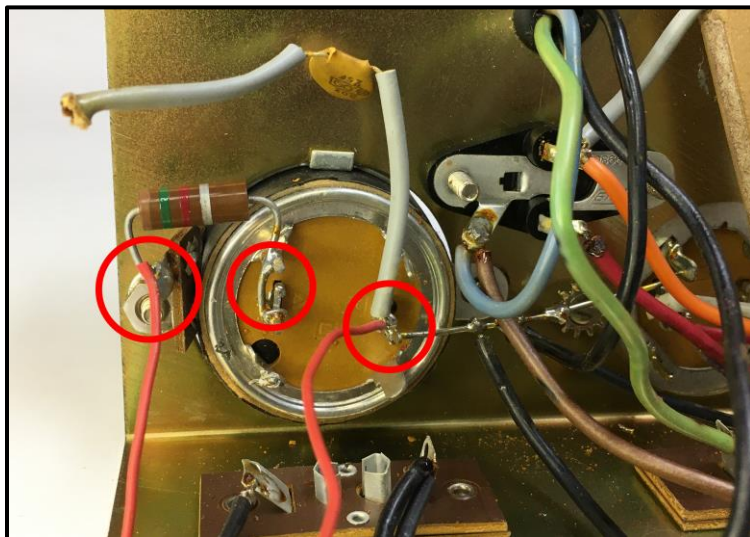
10. Feed the red and white wires (clipped from the PCB) up through the grommet.



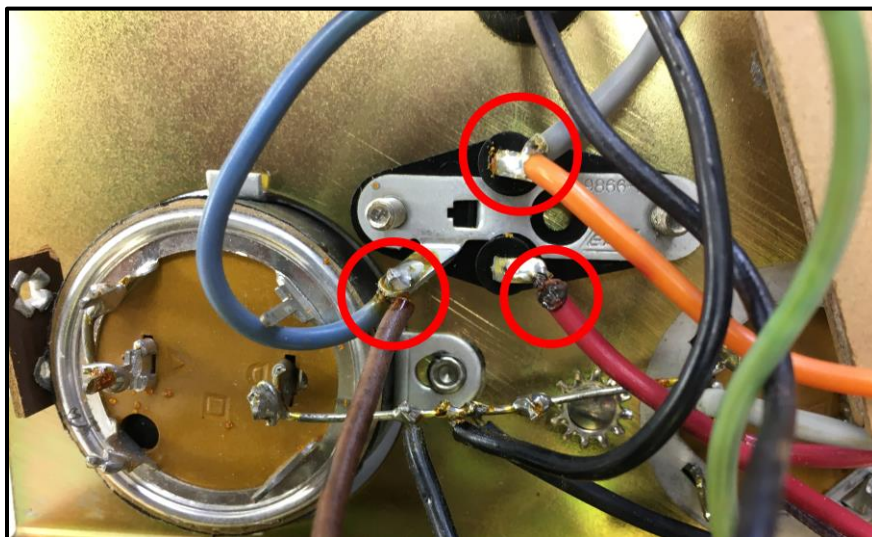
11. Clip and dispose of the wires at both the negative rectifier and the negative filter capacitor.



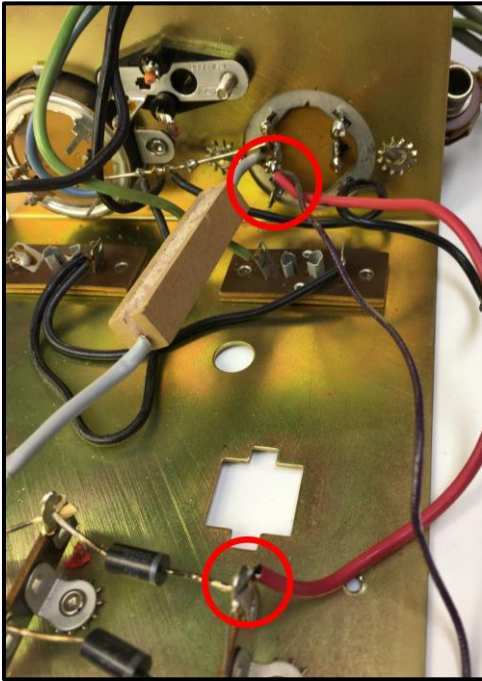
12. Clip out and dispose of the 1.5K resistor, indicator bulb and, if present, “death capacitor”.



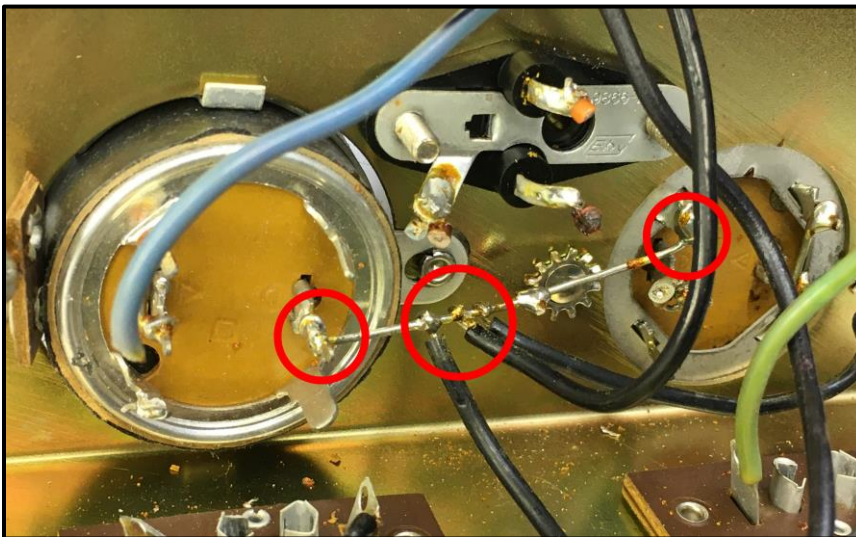
13. Clip the 10W resistor and all four wires from the transistor socket. Dispose of the loose wires.



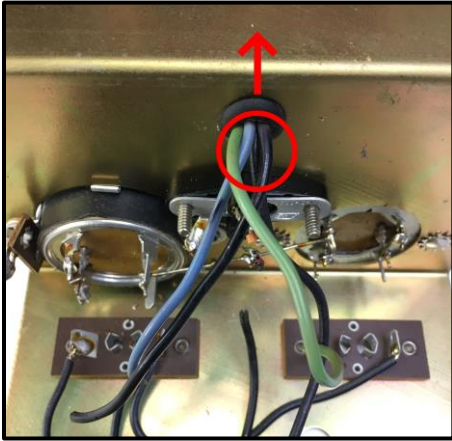
14. Clip out and dispose of the 10W resistor and wires at the positive filter capacitor and rectifier.



15. Clip the wires at the grounding bus bar. Dispose of the loose wires. Clip out and dispose of the grounding bus bar.



16. Feed the blue and black wires up through the grommet.

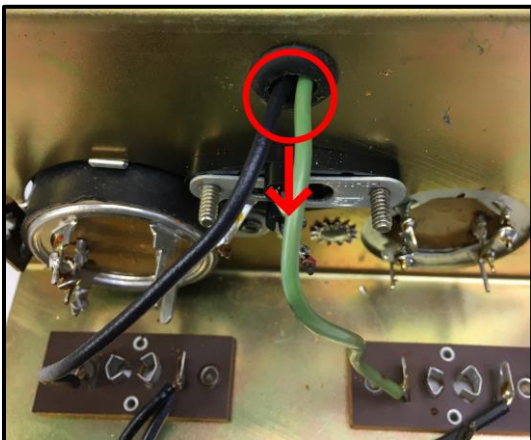


17. Clip all four wires (green, white, red and black) from the headphone jack.
*Cut the wires as closely to the lugs as you can to preserve their lengths.

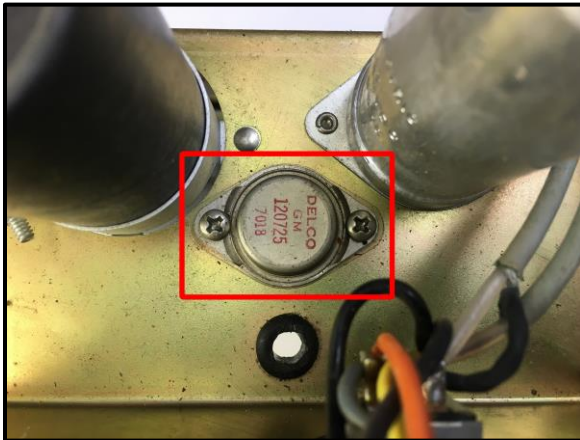


Set the red and white wires aside as they will be re-used later on.

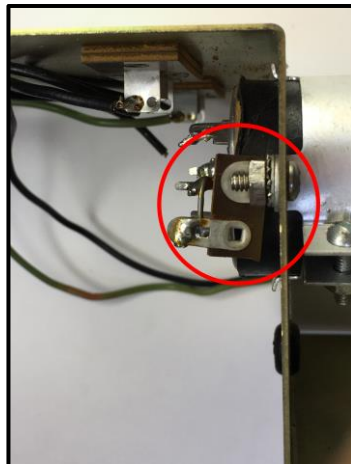
18. Pull the black and green wires down through the grommet.



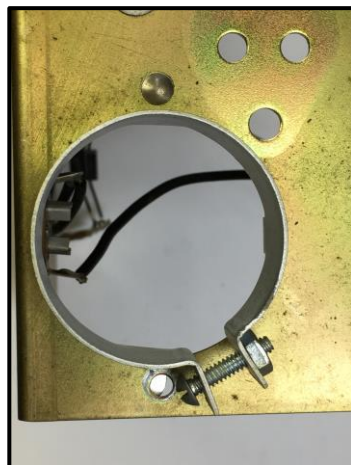
19. Unscrew and remove the TO-3 transistor and socket.



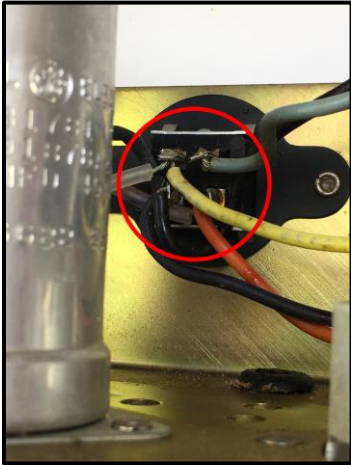
20. Unscrew and remove the terminal strip at the negative filter capacitor.



21. Loosen the screw at the negative filter capacitor clamp.
Remove and dispose of the capacitor.



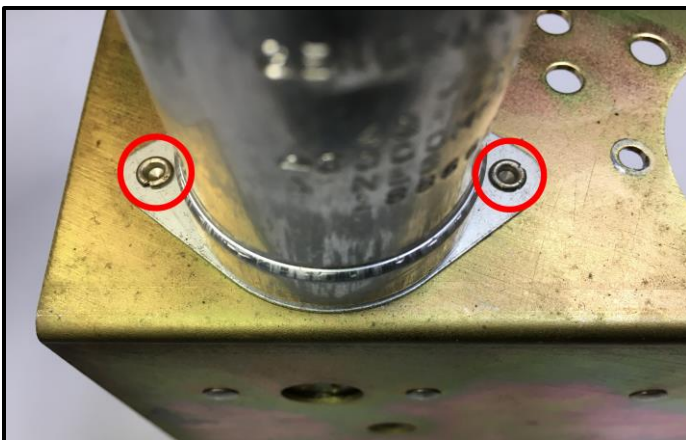
22. Clip all the wires at the 4-Pin DIN or Cinch (pictured) socket.



23. With a 1/8" drill bit, drill-out the rivet securing the negative filter capacitor clamp to the chassis, remove and dispose of the clamp.

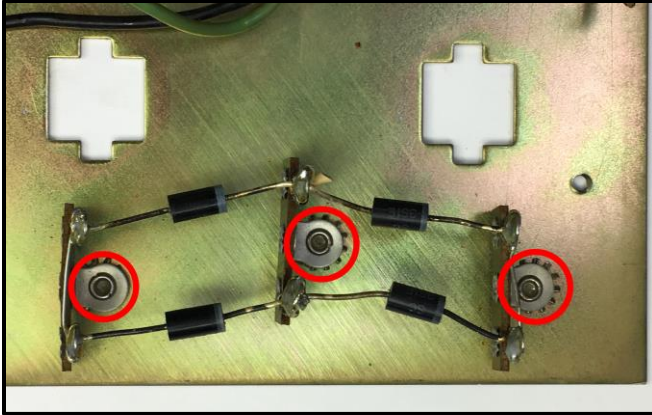


24. With a 1/8" drill bit, drill-out the rivets securing the positive filter capacitor to the chassis, remove and dispose of the capacitor.

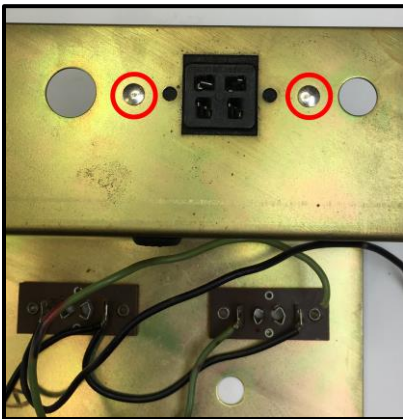


25. With a 1/8" drill bit, drill-out the rivets securing the rectifier terminal strips to the chassis, remove and dispose of the terminal strips and diodes.

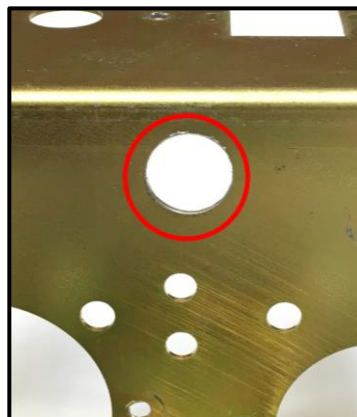
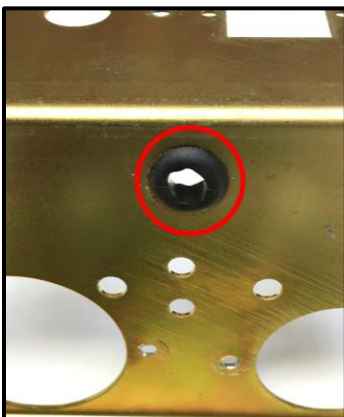
*Some units may have rubber stripping covering some of the rivet heads. If so, simply peel the strip back temporarily while drilling through the rivets.



26. With a 1/8" drill bit, drill-out the rivets securing the 4-Pin DIN or Cinch (pictured) socket to the chassis, remove and dispose of the socket.



27. Remove the grommet, drill-out the hole to 7/16", remove any swarf/burrs and install the included grommet.

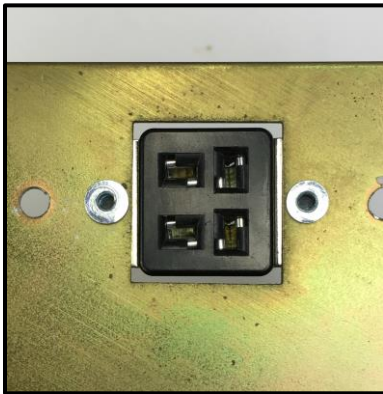


28. You should be left what is pictured below. The indicated black wire could be soldered to either of the two circled locations.

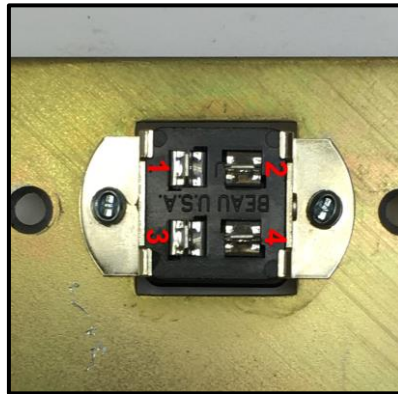


29. Install and rivet the replacement 4-Pin DIN or Cinch socket to the chassis.

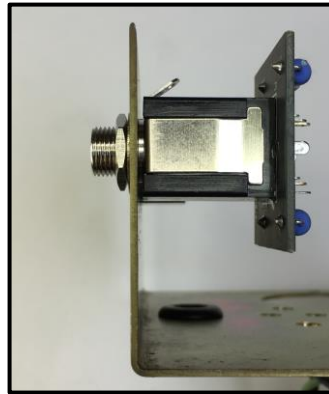
Front View:



Rear View:

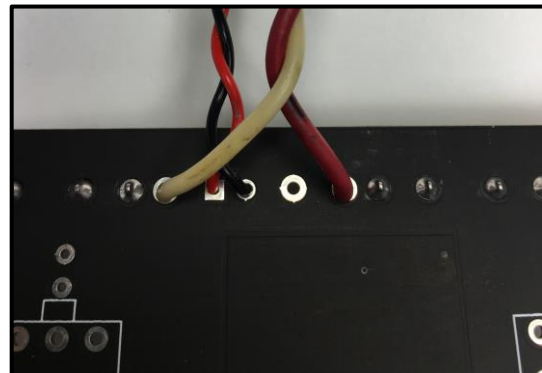
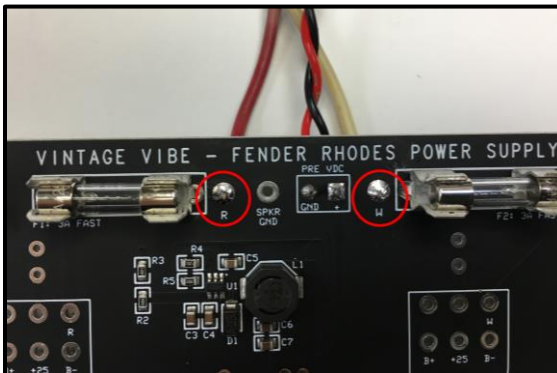


30. Using the included washer and nut, install the headphone jack PCB as shown.

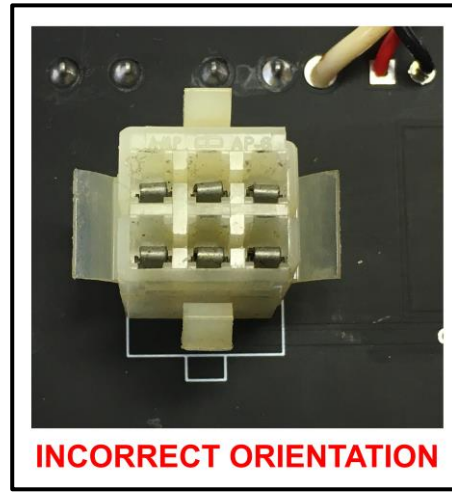
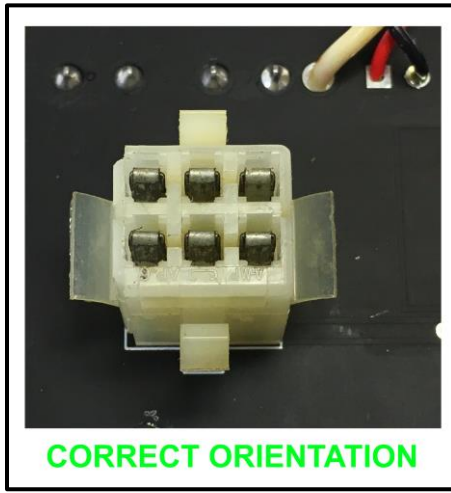


*The headphone jack nut is not a standard 1/4" jack nut; so be careful to use the included nut only for THIS jack.

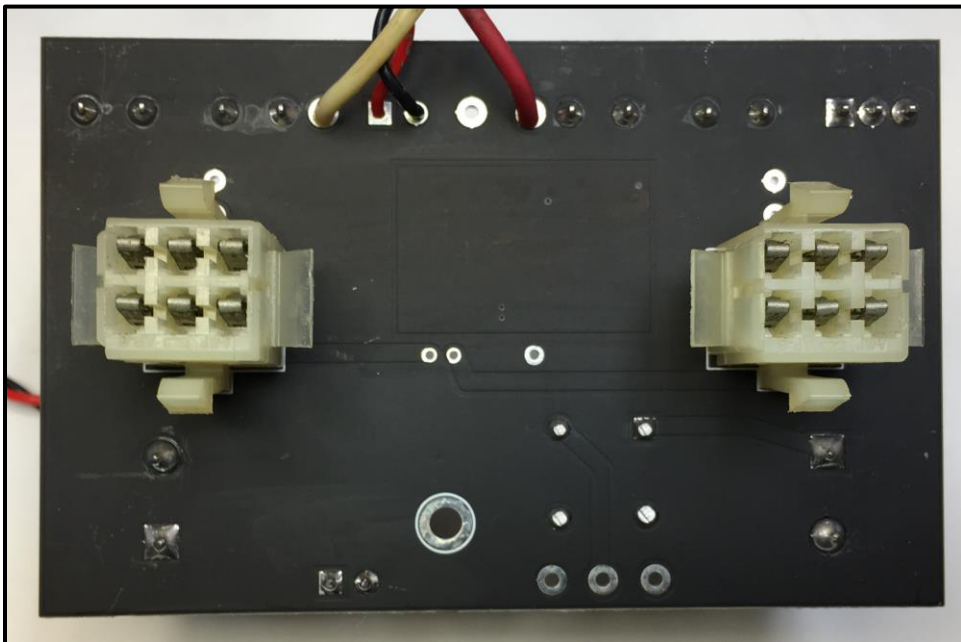
31. Solder the red and white wires you retained at step 17 to the new power supply PCB. Feed the wires from underneath the PCB and solder to the top side as shown; the red wire to the pad marked "R" and the white wire to the pad marked "W". Twist the red and white wires together – leaving about 1" untwisted at the PCB end as shown below.



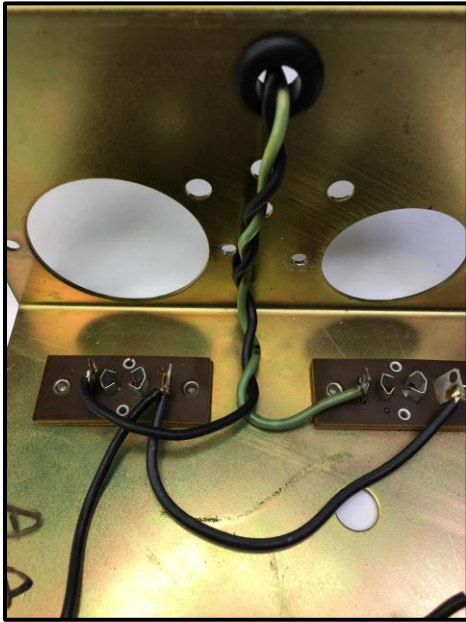
32. Insert Molex socket connectors through bottom side of the PCB. Utilize the silkscreen outline to ensure they are properly oriented.



Solder the connectors, ensuring that they are flush to the PCB and do not rotate out of alignment.

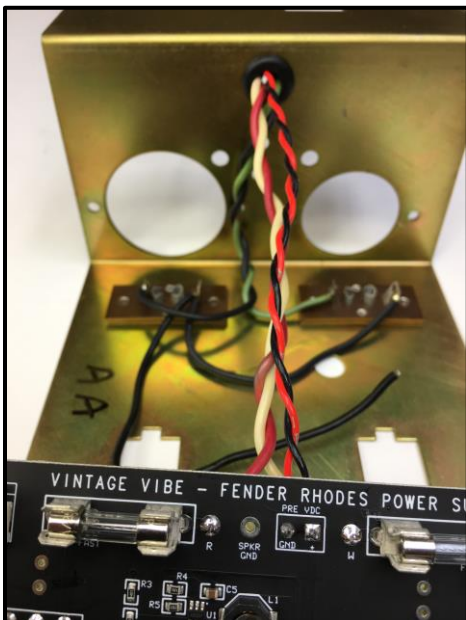


33. Twist the green and black wires as shown. Press them back against the chassis walls and feed them up through the grommet.

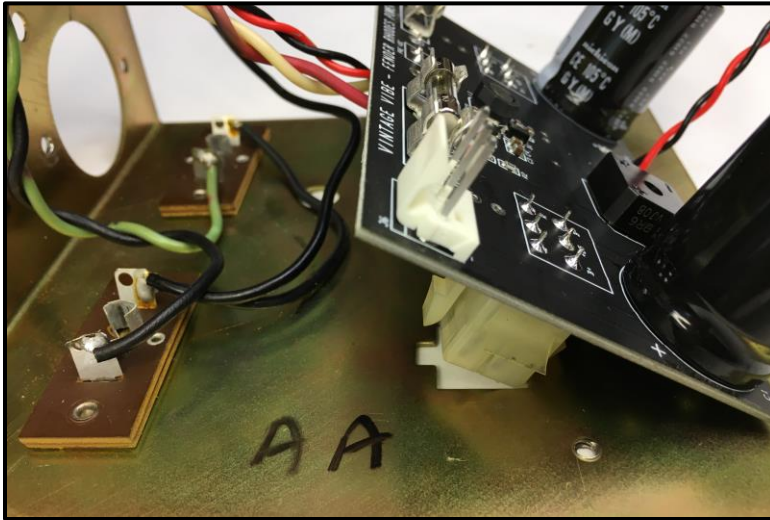


*Take a moment to inspect the solder connections at the speaker jack terminals. If the wires seem loose, are fraying or the solder joints are not smooth and shiny, re-strip and re-solder.

34. Feed the twisted Red/White and Red/Black wire pairs from the power supply PCB up through the grommet.

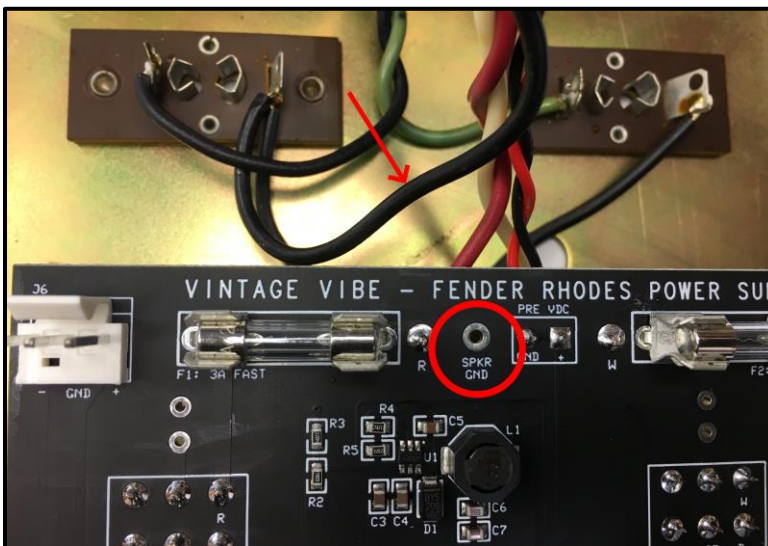


35. Line the power supply PCB up so the Molex socket connectors are sitting directly above the mating cutouts in the chassis panel. Do NOT install them yet.



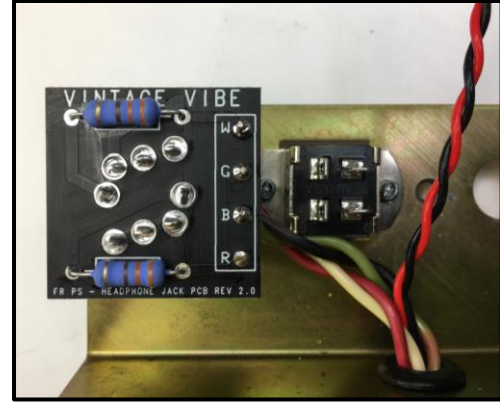
Press the red/white and red/black pairs of wire neatly back against the chassis walls along with the previously dressed green/black pair.

Trim the remaining black wire at the speaker terminals to an appropriate length to be fed under the power supply PCB and through the solder pad marked "SPKR GND".



Install and solder the wire.

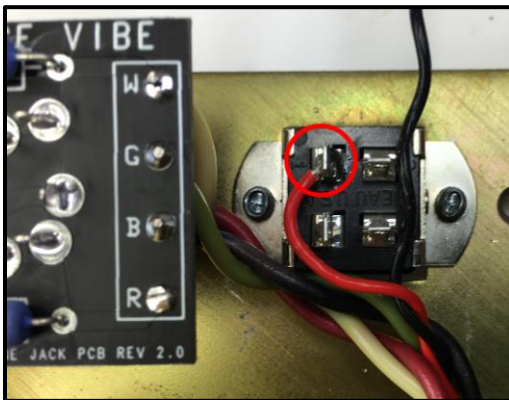
36. Trim the red/white and green/black twisted pairs of wire so they are appropriate lengths to install at the headphone jack PCB. Insert the wires through the bottom side of the PCB - allow adequate length so that the wires can be dressed out of the way of the 4-Pin DIN or CINCH socket.



Solder the wires to the PCB pads: “W” = White, “G” = Green, “B” = Black, “R” = Red

37. Route the red wire from the red/black twisted pair to Pin 1 of the 4-Pin connector; trim, strip, install and solder.

CINCH:

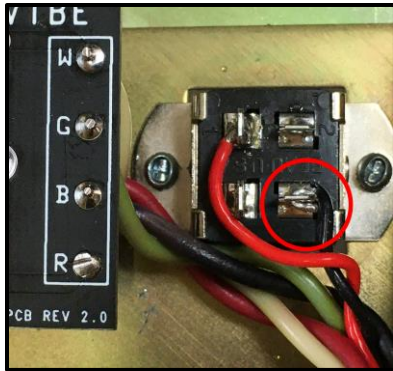


DIN:

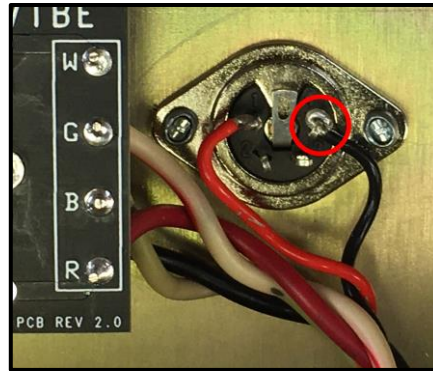


38. Route the black wire from the red/black twisted pair to Pin 4 of the 4-Pin connector; trim, strip and install the wire, but do NOT solder yet.

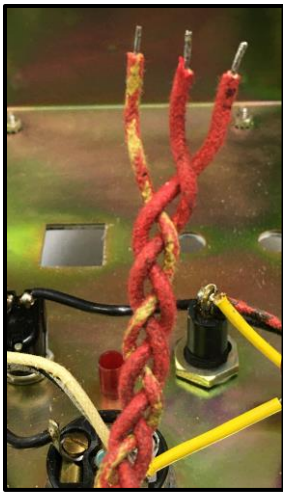
CINCH:



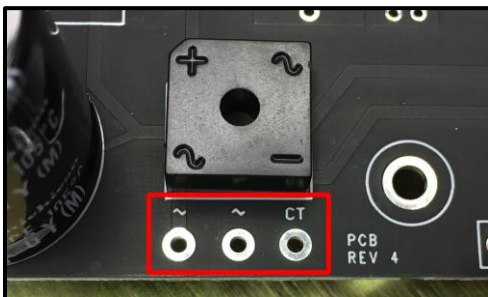
DIN:

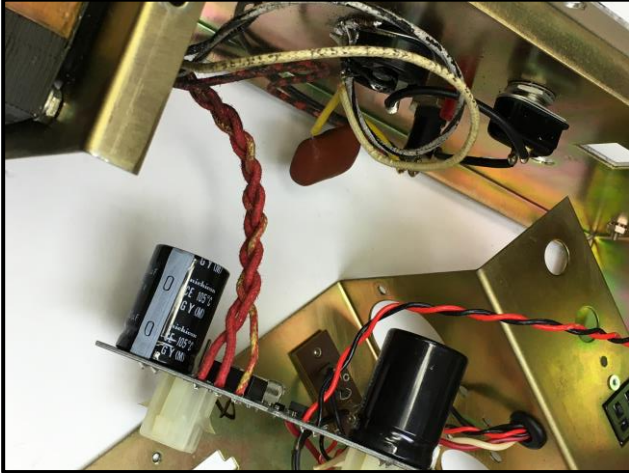


39. Braid the power transformer secondary wires. After braiding, trim to 5" in length from where the wires exit the transformer end bell. Orient the wires so that yellow/red center-tap wire is to one side of both of the red wires as shown.

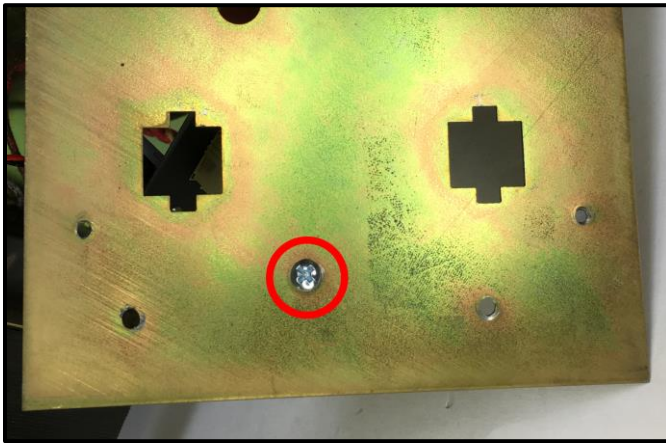


40. Insert the wires through the top side of the power supply PCB and solder.
 “~” = Red Wire, “CT” = Red/Yellow Wire

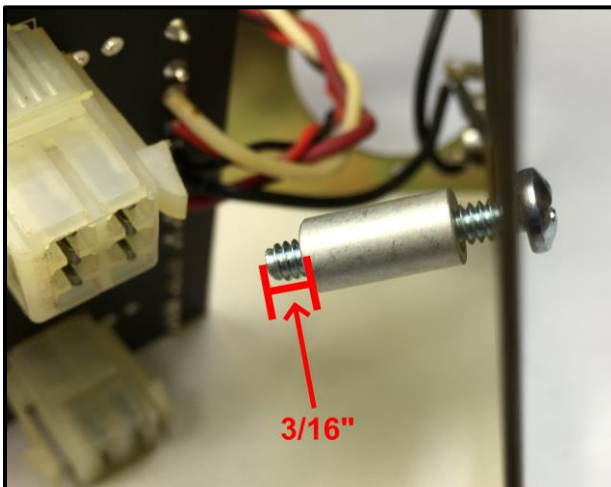




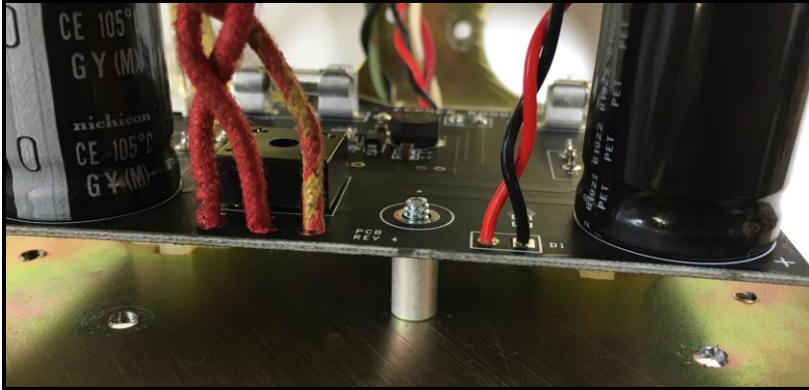
41. Insert the included 7/8" #6-32 machine screw through the rear of the internal chassis panel as shown.



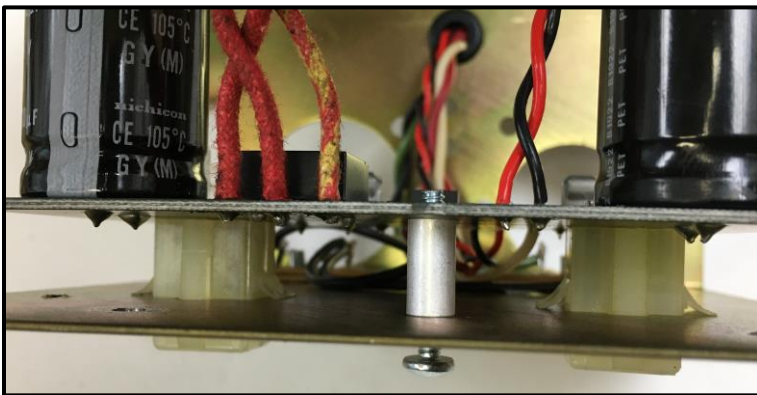
42. Thread the included standoff onto the screw until the screw protrudes through the standoff by about 3/16".



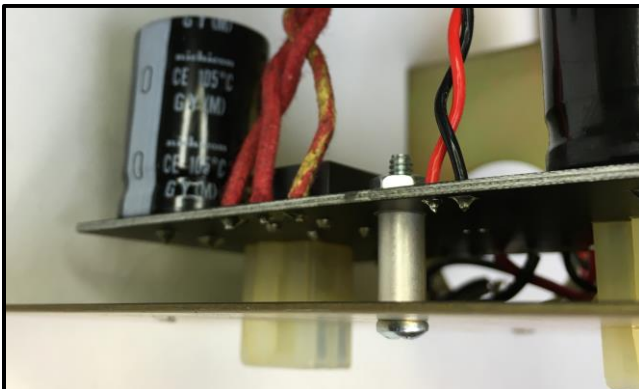
43. Position the power supply PCB so that the Molex socket connectors are in the corresponding cutouts on the internal chassis panel. Position the machine screw to slide the exposed portion through the corresponding mounting hole in the power supply PCB.



Press down on the PCB to seat the Molex socket connectors to the panel.



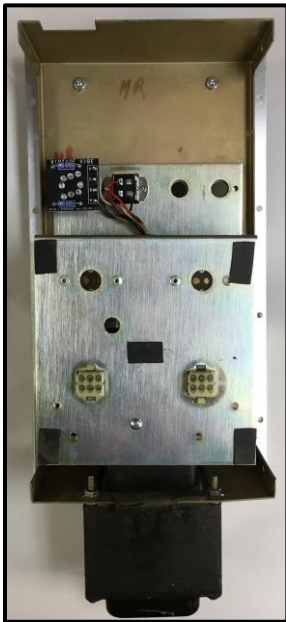
44. Install the included lock washer and hex nut onto the machine screw. Advance the screw until its end is flush with the top of the hex nut. Holding the hex nut against the PCB with a 5/16" nut driver, advance the screw until it is fully seated against the chassis panel, the hex nut is tight against the PCB and the standoff is not able to shift position.



45. Position the internal chassis close to the main power supply enclosure. Insert the LED into the red power indicator lens.

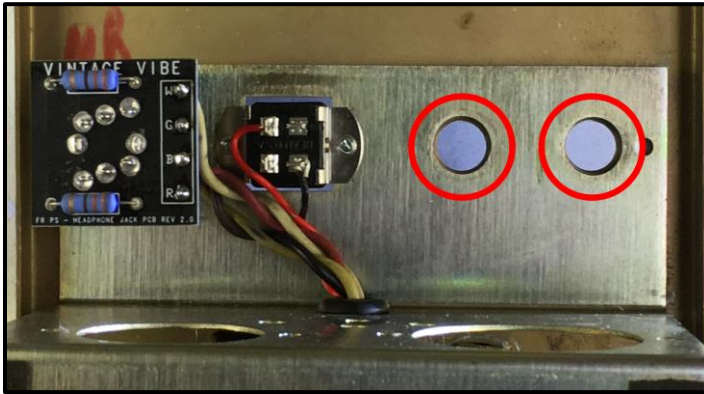


46. Remove the washer and nut from the headphone jack. Using the headphone jack and 4-Pin socket for alignment, place the internal chassis in position within the main power supply enclosure. Reinstall the headphone jack washer and nut.

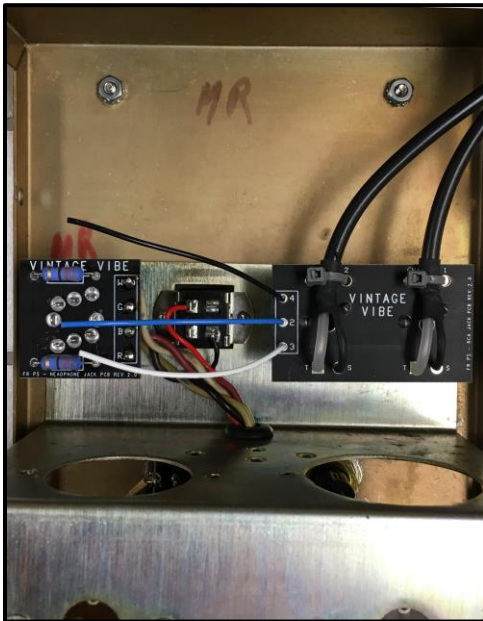


**Inspect the power transformer secondary wires and dress them so as to ensure that they have adequate strain relief at the power supply PCB.

47. Adjust the internal chassis to ensure the two 1/4" External Amplifier jack mounting holes are aligned with the corresponding holes on the main power supply enclosure.



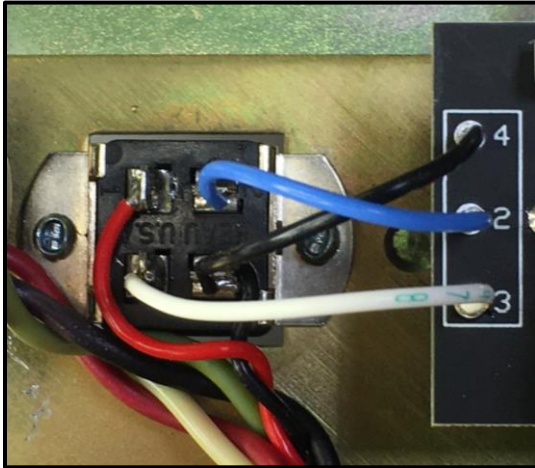
Remove the nuts and washers from the 1/4" jacks on the External Amplifier Jack PCB. Install the jacks through the corresponding mounting holes and install the washers and nuts.



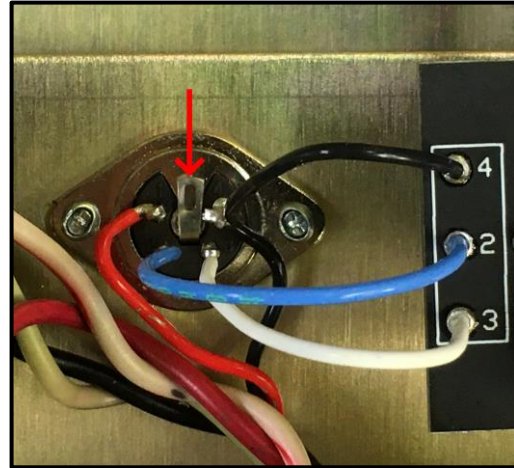
48. Install the three wires from the External Amplifier Jack PCB to the corresponding lugs of the 4-Pin DIN or CINCH connector and solder. This will also result in the black wire from step 38 being soldered to pin 4.

Blue Wire = Pin 2, White Wire = Pin 3, Black Wire = Pin 4

CINCH:

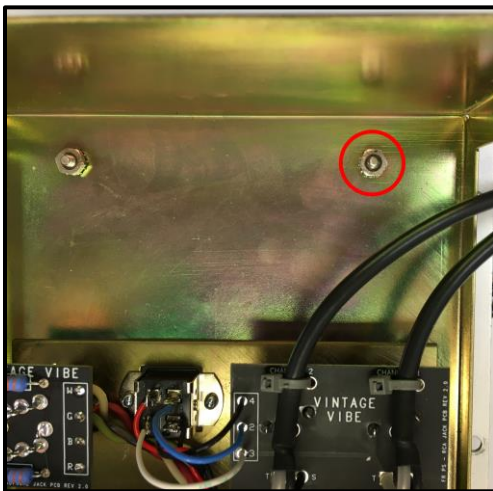


DIN:



**For units with DIN sockets, do NOT terminate the center chassis tab (indicated above) to any of the solder terminals.

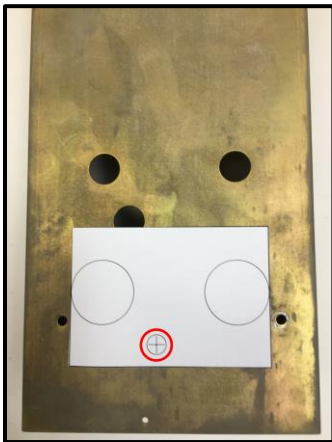
49. Remove the upper right machine screw and lock nut from chassis.



50. Install the included 3/8" wire clamp around the coax cables as shown and secure it in place with the screw and lock nut removed in step 49.



51. Cut out the included drill-guide. Align the large holes on the guide with the large holes on the enclosure back panel. Mark the location of the smaller center-marked circle. Drill-out the marked location to 3/8" diameter. Remove any burrs/swarf.

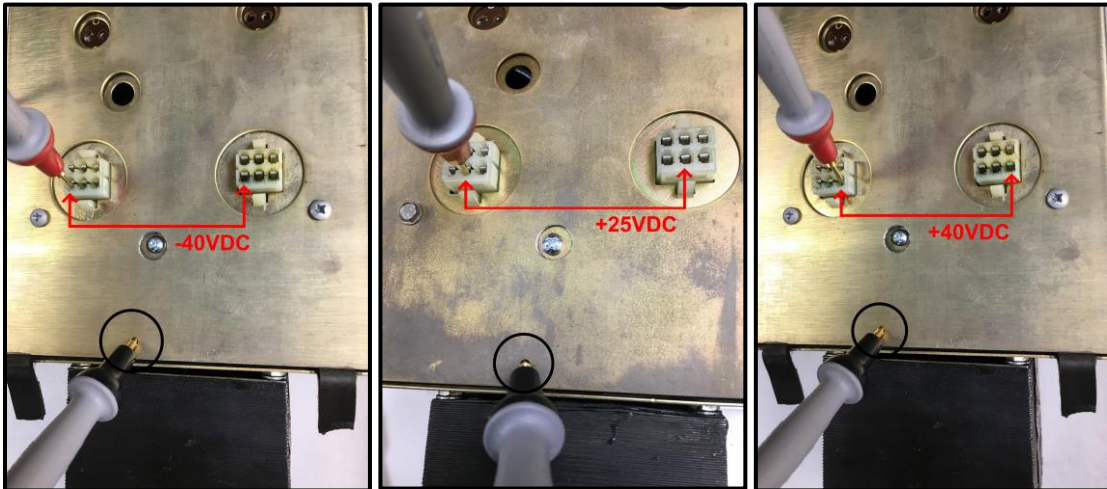


52. Reinstall the enclosure back panel and secure it with the screws removed at step 2. Ensure that all of the screws are securely seated. If any are stripped-out, consider replacing with a #8 sheet metal screw in place of the original #6.
53. Double check that the line fuse is correct and not faulty
 120VAC = 2A Slow Blow
 240VAC = 1A Slow Blow
54. Plug the unit into the wall outlet and power it on*.
 Measure the power supply output voltages at each Molex socket connector with a DC voltmeter referenced to chassis. Ensure the voltage readings are correct +/- 10%.

+40VDC

+25VDC

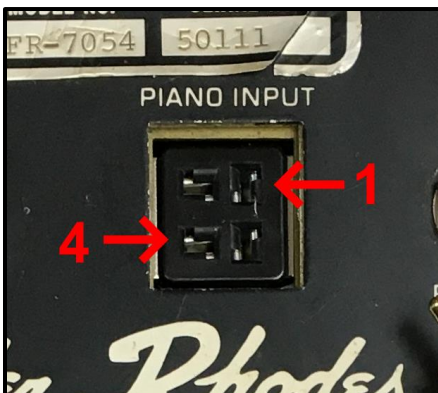
-40VDC



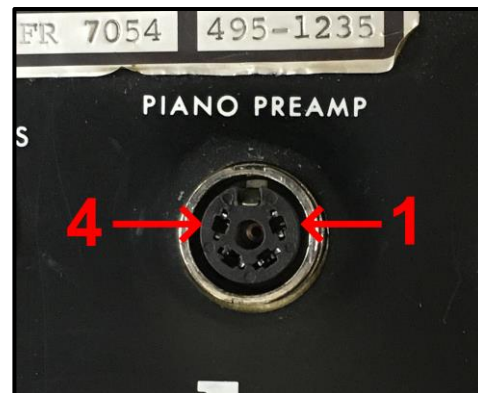
*It is recommended that the initial power-up be done with a variac while monitoring the AC current draw. The current consumption for an unloaded power supply will be approximately .15A for 120V units and .075A for 240V units.

55. Measure the preamplifier supply voltage at the 4-PIN CINCH or DIN socket. With the positive probe to Pin 1 and the negative to Pin 4, the voltage should measure +25VDC.

CINCH:



DIN:



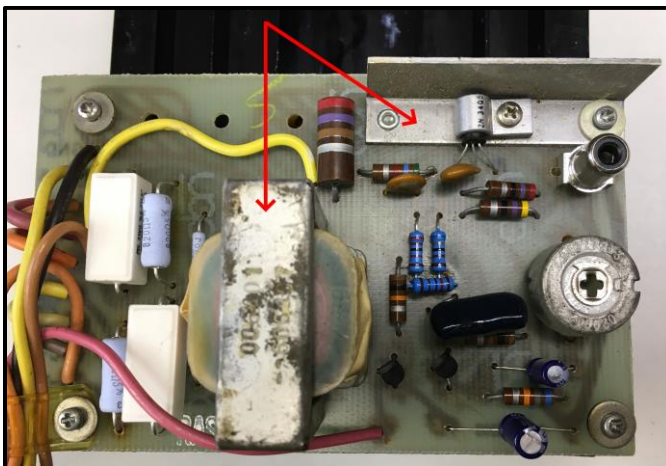
56. Turn the unit off. Be aware that without the amplifier modules plugged in, it will take several minutes for the voltage to drain fully from the unit and therefore it should be considered "live".

57. Apply the included sticker to the back of the enclosure as a reminder not to unplug the RCA cables from the amplifier modules nor the amplifier modules from the power supply unless the power supply has first been powered off; doing so could result in damage.

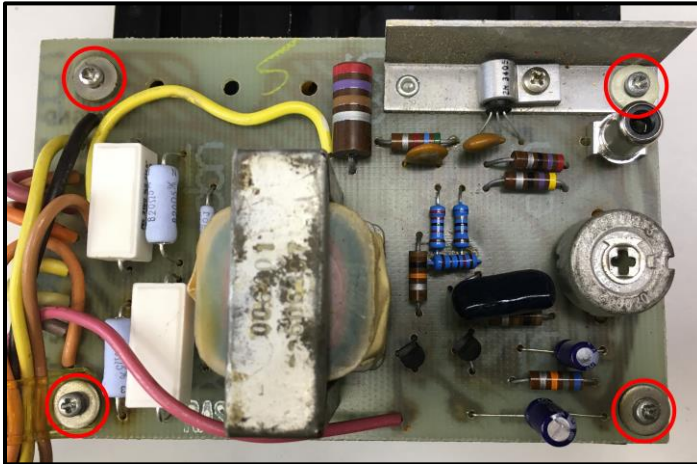


If your amplifier modules are either original Peterson production or Vintage Vibe reproduction modules with red PCBs continue to step #58. Otherwise, this concludes your installation.

58. Use your multimeter to check for continuity between the interstage transformer frame and the 2N3405 heatsink on each amplifier module PCB. The heatsink is connected to ground on the underside of the PCB. If continuity is confirmed, then the transformer bracket is also grounded.



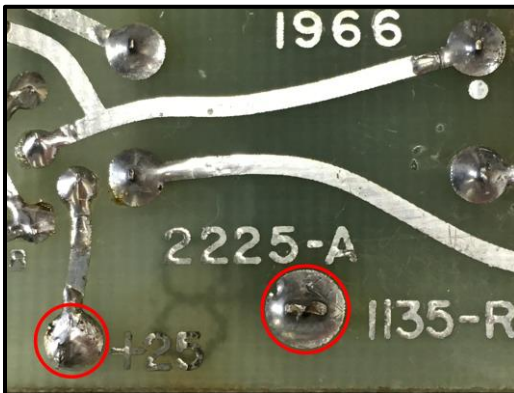
59. Remove the four screws securing the PCB to the heatsink. Set aside the screws, washers, standoffs and nuts.



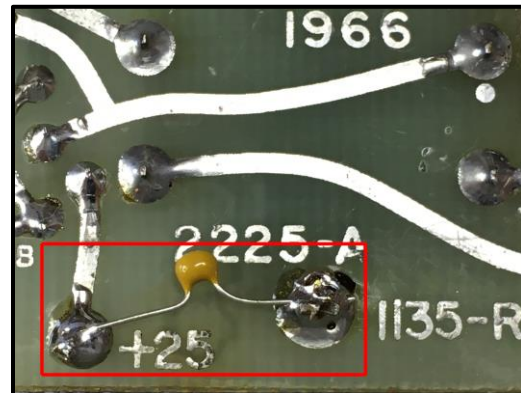
60. Install a .1uF ceramic disc capacitor between the +25V and the interstage transformer bracket solder pads on each module PCB.

*Be sure to orient the capacitor so that it is secured against the bottom of the PCB and that its leads are not able to touch any other pads.

Before:



After:



61. Reinstall the amplifier module PCB to the heatsink using the hardware set aside earlier. This concludes your installation.

*As you are rebuilding your power supply, we would recommend that you take things one step further and rebuild your amplifier modules as well. A rebuild kit is available on our website.

Additional Notes:

1. The stereo headphone jack has been improved so that when headphones are utilized there will be no output from the cabinet speakers.

**Do NOT plug anything other than a pair of Stereo Headphones into the headphone jack. Doing so can result in damage to the amplifier modules.*

VINTAGE VIBE:

Rhodes 4-Pin Suitcase Power Supply Rebuild Kit - Drilling Template

1. Print pdf at 1:1 scale.
2. Measure 2" length to the right to ensure the template is printed to the correct scale.
3. Cut out template along outer lines.
4. Position template against the rear of the enclosure back panel:
 - Align the large holes on the guide with the large holes on the enclosure back panel.
5. With an awl, mark the location of the small center-marked circle as shown in the installation instructions.
6. Drill-out the marked location to 3/8" diameter.
7. Remove any burrs/swarf.

