

## **TRIODE ELECTRONICS/ SDS LABS**

### **CAPACITOR BOARD FOR DYNACO ST70**

#### **Easy Installation Instructions:**

1. **Solder the parts on the board where indicated (see parts list for part numbers)**
2. The white stripe indicates the negative side of the capacitor.  
The white stripe side of the capacitors **must be opposite** of the "+" indicator on the board.  
**The white stripe (band) of D1 diode must be pointed towards the red/black wire from the transformer, the white stripe (band) of D2 & D3 diodes (if used) must be pointed AWAY from the red transformer wires. You can skip installing D2 & D3 if you are using a 5AR4/GZ34 tube. Improper installation will cause the capacitors to fail and possibly rupture or spew hot goo.**
3. The 330K surface mount resistors do not have any polarity, they can be installed in either direction.  
**The 330K surface-mount resistors solder to the bottom of the board.**  
**A simple way to install the 330K resistors is to glue them to the board using a tiny dab of cement in the middle of the resistor. Then solder the ends to the pads.**
4. Remove the terminal strip that the 50 uF 70V bias capacitors and the three legged freak disc capacitor are mounted on, and disconnect wires attached to it.
5. Solder wires to the board as noted on the diagram.
6. Install the standoffs on the transformer bolts. Place the board on the standoffs, and attach using nuts/screws provided.
7. It is not necessary to use a variac or other device to bring up the voltage slowly, but make sure you have the correct size fuse installed, and point the bottom of the amplifier away from your face when first powering up the unit, in case any components are improperly installed.
8. Reset bias on output tubes (usually EL34's) to normal (usually 1.56V at biaset checkpoint on front panel) using the bias controls. Always check both sides twice in order (check the left, then the right, then go back and check the left then the right again).
9. A plug in solid-state 5AR4 rectifier replacement can be used in place of the 5AR4/GZ34 instead of using the D2 & D3 diodes on the board. Make board connections as if you were using a 5AR4/GZ34.
10. Always be sure and reset the bias when replacing the rectifier tube with either a new tube, a different tube (eg: a 5U4-G/GB) or a plug in solid-state rectifier replacement, or when replacing EL34's.
11. It's possible to broaden the bias range to accomodate tubes such as 6L6-GC, KT66, 6550, or KT88 by replacing the 10K bias controls with 20K or 25K controls or replacing R3 with 4.7K or 5K resistor. The Biaset voltage should be set to the same point (usually 1.56V) no matter which of those tubes is used.
12. If the Biaset voltage is too low (won't come up to 1.56V) first check to make sure that the "Rcath" point on the board is connected directly to Pin 8 on the 5AR4 socket.

If you need more information for servicing your Stereo 70, you can download the original manual from:

<http://www.triodeel.com/schindex.html>

and a troubleshooting guide may be found here:

<http://www.triodeel.com/trouble.html>