

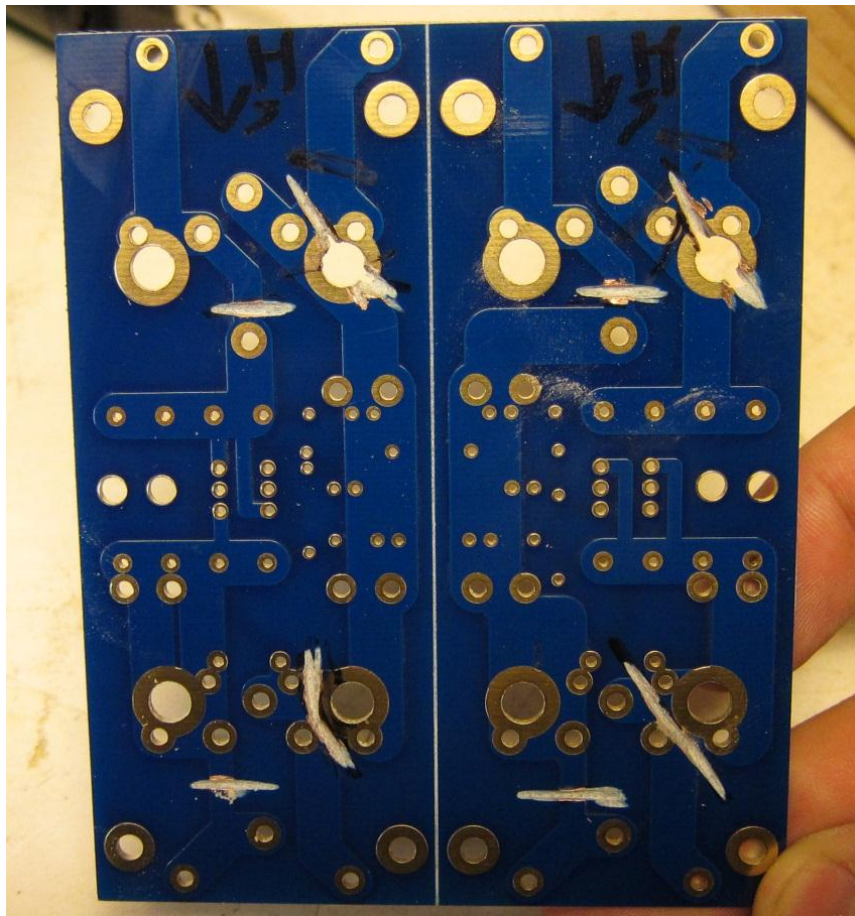
## Construction begins



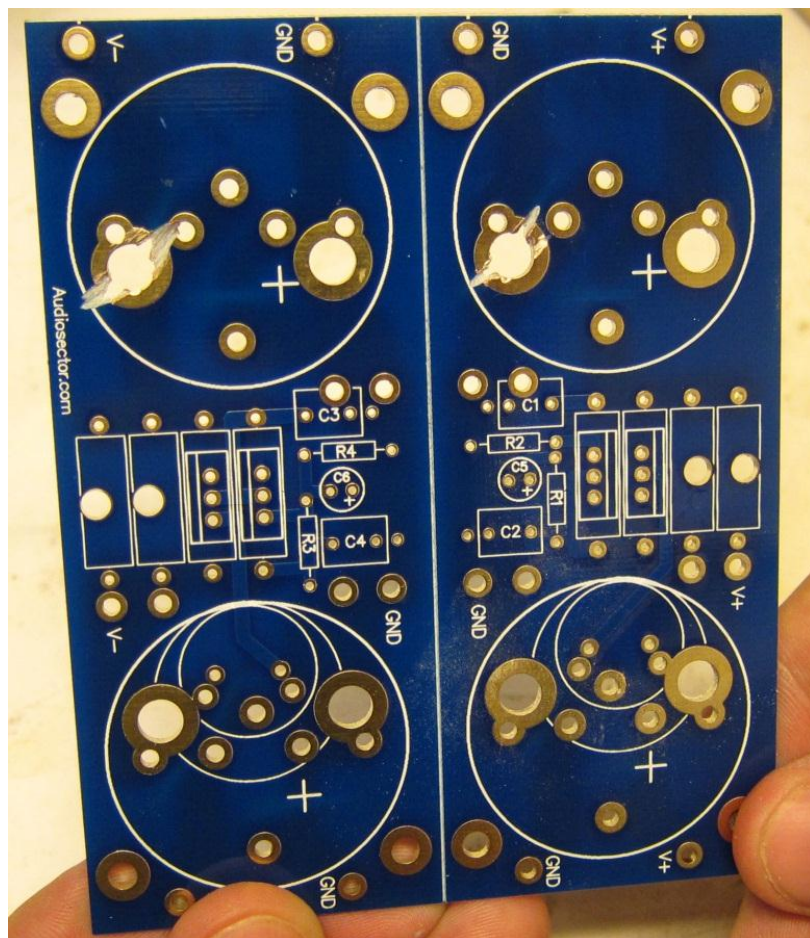
The 33,000  $\mu\text{F}$ , 40 V, four-pole, Jensen electrolytics are expensive. We had some and used them. But don't feel you must spend such money. Bridge rectifiers are on the right and will bolt to the bottom of the case. The metal bases of the rectifiers are insulated from the semiconductor, and no paste or mica is required to prevent a short, but many recommend paste for heat transfer, alone, so we chose to use it. The brown resistors on the left are Vishay, 0.47 ohm, 5W, 1% tolerance. The slightly blue resistors are the 2K2 ohm bleeders, and we actually chose to use some different brand ones in mid-construction, simply for convenience. The breakoff/detachable portions of the PS boards that are used for different types of rectifiers have been removed and discarded.

Discussions and beliefs as to whether using 4-pole rather than 2-pole PS electrolytic capacitors actually results in a difference in sound that can be detected by the ears of human beings abound, and we remain skeptical anyone could tell the difference by ear, alone. Nevertheless, we had very nice 4-pole caps, and we had Peter Daniel's PS board that can be modified to take advantage of 4-pole caps, so we decided to undertake the modification. If anything, it would only improve the amp's performance, though we aren't claiming it actually did. Of note, if you use 4-pole caps without making the modifications, the PS will work fine, but the caps will behave as 2-pole capacitors.

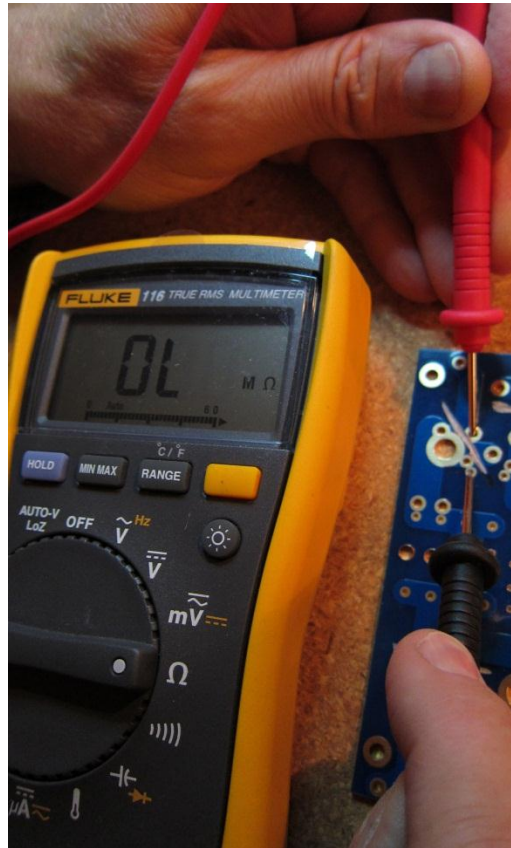
In order to gain any benefit of the 4-pole capacitors, the power supply board must be scored in four locations as Peter has instructed and illustrated online. We used a Dremel tool to cut across conducting areas of the board as shown below. Ignore the felt-pen writing on the top of the board.



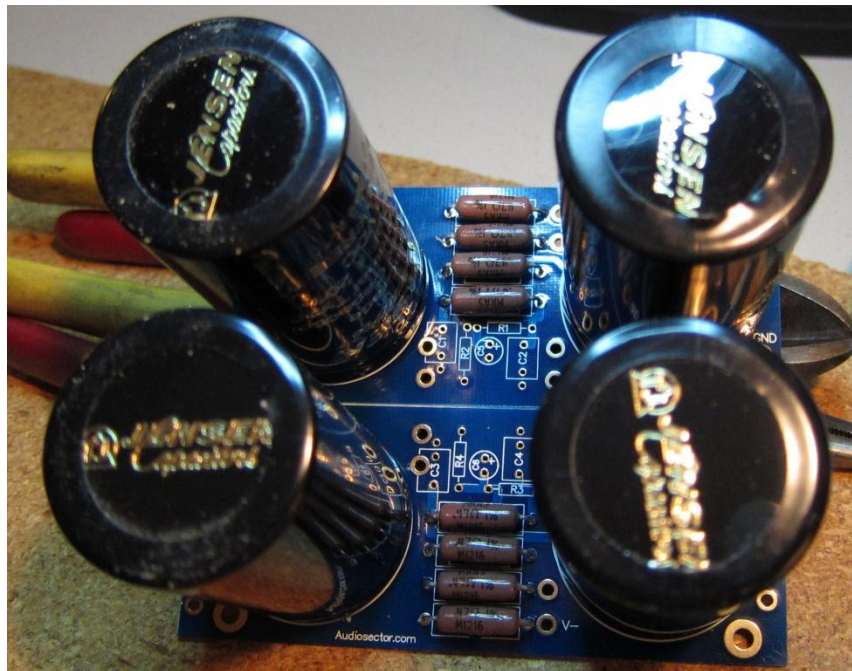
And we also had to score through on the top surface of the board, as well, in a couple locations to completely break conductivity.





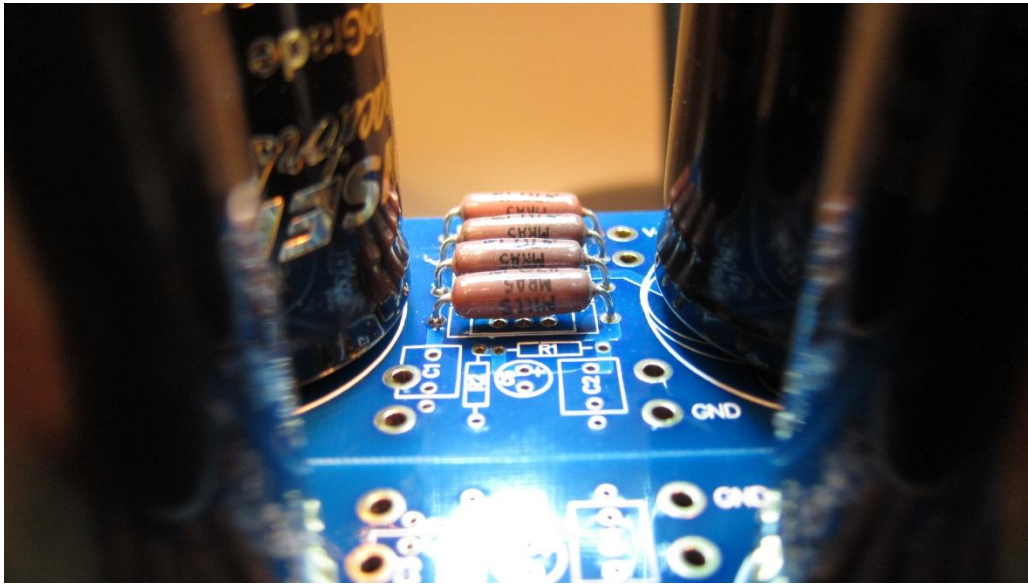


We used an ohm meter to confirm that we had completely scored through appropriate areas.

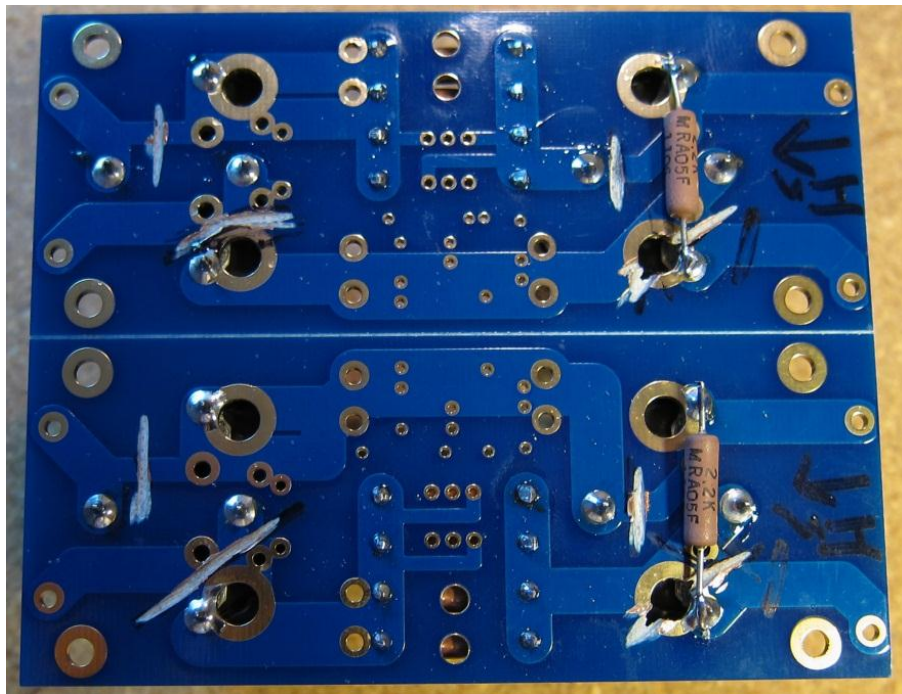


The Jensen 4-pole capacitors will only fit on the board in one position (the correct position).

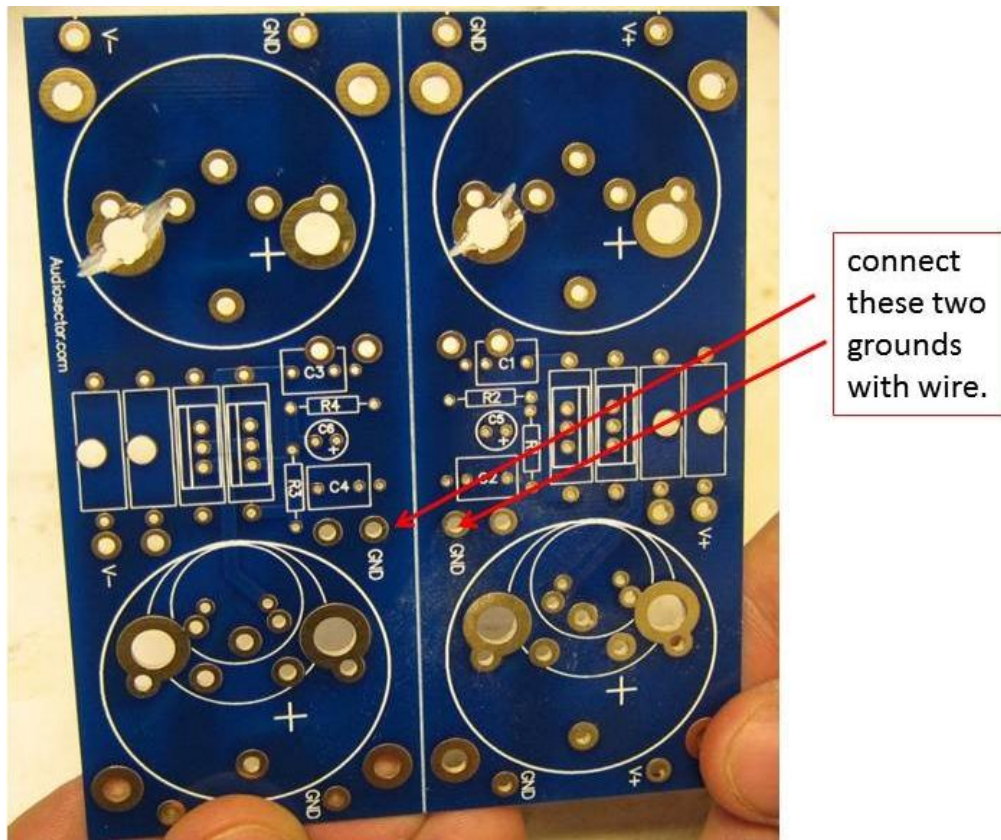
We always take care to be sure that the power resistors remain slightly elevated off the PCB in order to allow for adequate cooling.



There is no space on the board for bleeder resistors, so we soldered them to capacitor terminals on the underside so the resistors would be across the inputs from the rectifiers, as shown below.



The next thing to do is connect the grounds between the two PS board halves.



There are a total of eight holes that are ground on both boards (4 on each board), together. I have placed red arrows on one from each board. Wire needs to be run between these (or any ground holes that connect both boards together) so the boards share a common ground. I chose these two simply for illustration. Some people have run wire between two sets of holes to provide a sense of security. We used stranded #16 wire. That's it for the power supply board for now.

Continued in part 3.