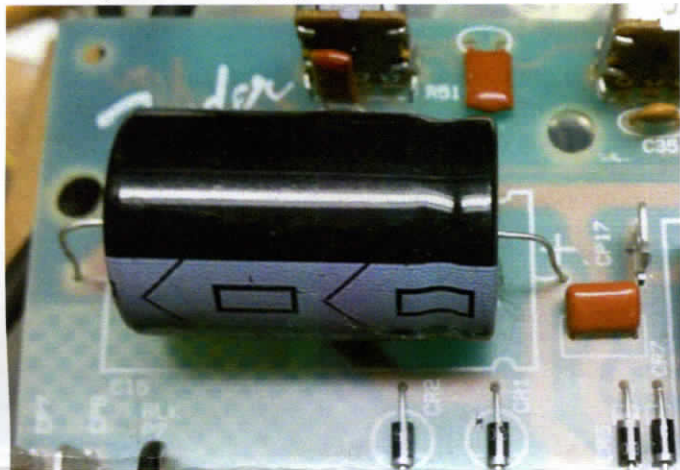


Billm Power Supply Stiffening

About discharging: If you turn your Blues Junior off while the tubes are warm, it will self-discharge completely. You can hear the sound fade away if you leave your guitar plugged in. It is not necessary to play; it's just a way to know that the caps are empty. If you turn a cold amp on and off quickly, it will hold a dangerous charge. The tubes need to be warm to self-discharge. But always verify with a voltmeter from the positive lead to ground! A residual charge between 6 and 15 volts is common; it's not dangerous; it's caused by chemical action inside the capacitors. After turning off the warm amp, unplug it and you will be safe.

Having twice as much capacitance in the first filter stage provides reserve power for the output tubes, which can be heard in stronger bass tones and sharper, more incisive pick attack. When you hit a guitar string, it sends a very large pulse into the amplifier, but it decays quickly. It actually tries to draw more instantaneous current than the stock power supply can deliver.

On the both the cream board and the green board, we replace the 47uF cap with a special low-ESR 100uFcap Before mounting the new caps, you can scrape off the old glue or just bed the new cap into the old rubber if the old cap comes off cleanly. Note that the rev B green board uses a longer, 500V cap. All other BJrs use a 450V cap, which has plenty of safety margin; the plate voltage is only around 330V.



We use clear hot melt glue to secure the caps to the board and prevent vibration. You can also use a small amount of silicone sealer. Put some under the cap; you don't need much.

This is the green board installation, but the cream is the same. The flat black face of the cap goes to the + marking on the board. The shiny side goes to the - or ground side.

Get the polarity right; smoke is not pretty.

Remember to trim the leads before reassembling.