B.Y.O.C.
Analog Chorus
Build Instructions.

If your kit contains a bezel mounted LED please use these instructions:

http://buildyourownclone.com/chorusinstructionsV1.pdf

Parts Checklist

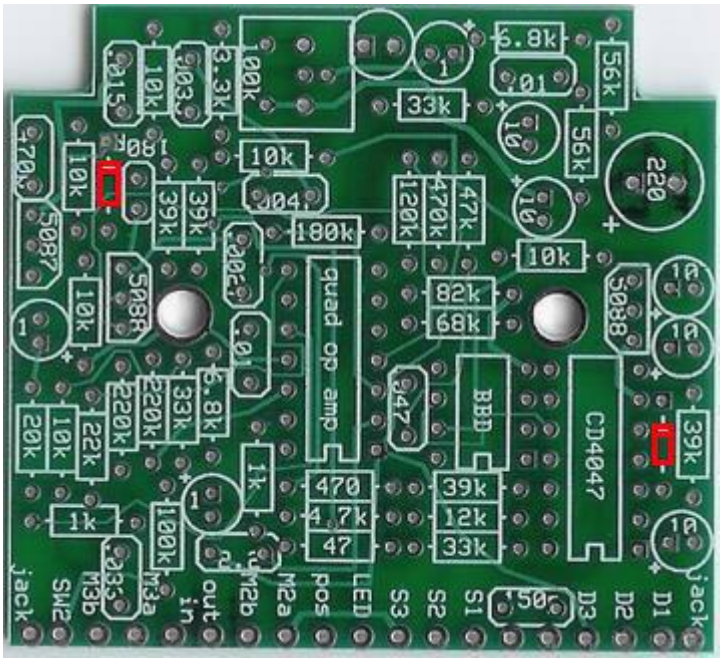
Resistors:
1 47ohm (yellow/purple/black/gold)
1 470ohm (yellow/purple/brown/gold)
2 1k (brown/black/red/gold)
1 3.3k (orange/orange/red/gold)
1 4.7k (yellow/purple/red/gold)
2 6.8k (blue/gray/red/gold)
6 10k (brown/black/orange/gold)
1 12k (brown/red/orange/gold)
1 20k (red/black/orange/gold)
1 22k (red/red/orange/gold)
3 33k (orange/orange/orange/gold)
4 39k (orange/white/orange/gold)
1 47k (yellow/purple/orange/gold)
2 56k (green/blue/orange/gold)
1 68k (blue/gray/orange/gold)
1 82k (gray/red/orange/gold)
1 100k (brown/black/yellow/gold)
1 120k (brown/red/yellow/gold)
1 180k (brown/gray/yellow/gold)
2 220k (red/red/yellow/gold)
1 470k (yellow/purple/yellow/gold)
1 1MegC pot (rate)
1 10kB pot (depth)
100k trimpot

Capacitors:
1 150pf ceramic disc(151)
1 180pf ceramic disc(181)
1 470pf ceramic disc(471)
1 .0027uf film (272)
1 .0033uf film (332)
1 .0047uf film (472)
2 0.01uf film(103)
1 .015uf film (153)
1 .033uf film (333)
1 .047uf film (473)
3 1uf electrolytic
1 2.2uf tantalum (yellow dipped)
5 10uf electrolytic
1 220uf electrolytic

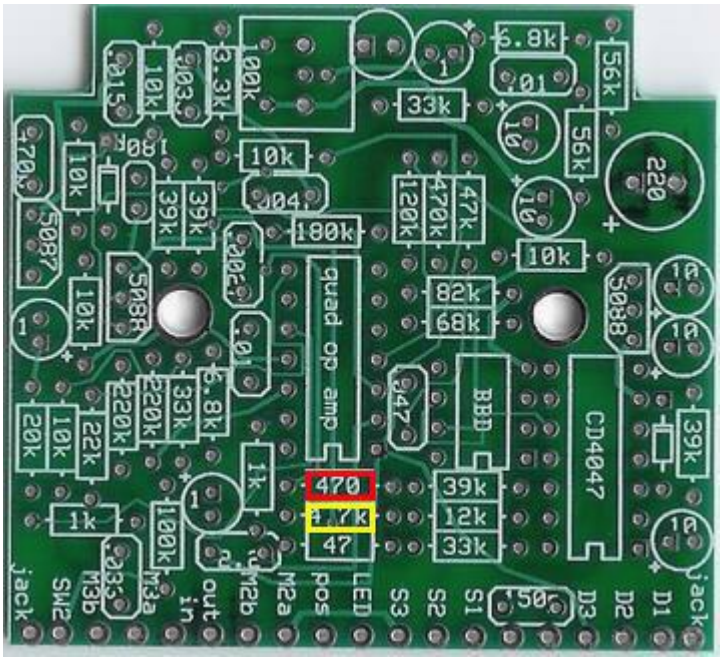
Diodes:
2 1N914 (small orange with black stripe)
1 Red T 1 3/4 (5mm)LED

Transistors:
2 2N5088 or MPS6521
1 2n5087 or MPS6523
IC's:
1 MN3007 BBD
1 8 pin socket
2 14 pin sockets
1 CD4047
1 LM324
Hardware:
2 self adheasive nylon standoffs
2 knobs
1 heavy duty battery snap
1 3PDT footswitch
1 1/4" mono jack
1 1/4" stereo jack
1 AC adaptor jack
1 125b size enclosure
1 circuit board
hookup wire

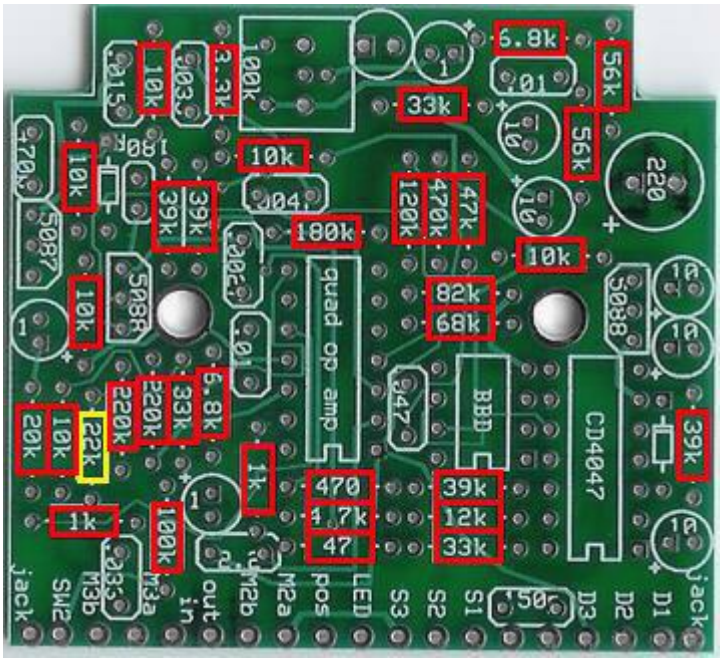
Populating the Circuit Board



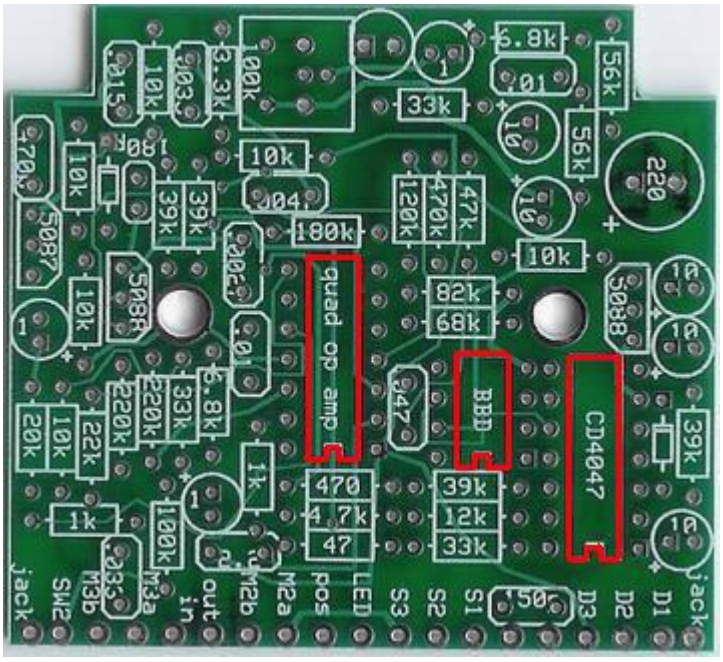
Step 1: Add the diodes. Make sure the black stripe (anode) is facing the correct way.



Step2: Decide if you want your LED statis light to blink or stay static. Use the 470ohm for a blinking light or 4.7k for a static light. Only add one or the other. DO NOT ADD BOTH!

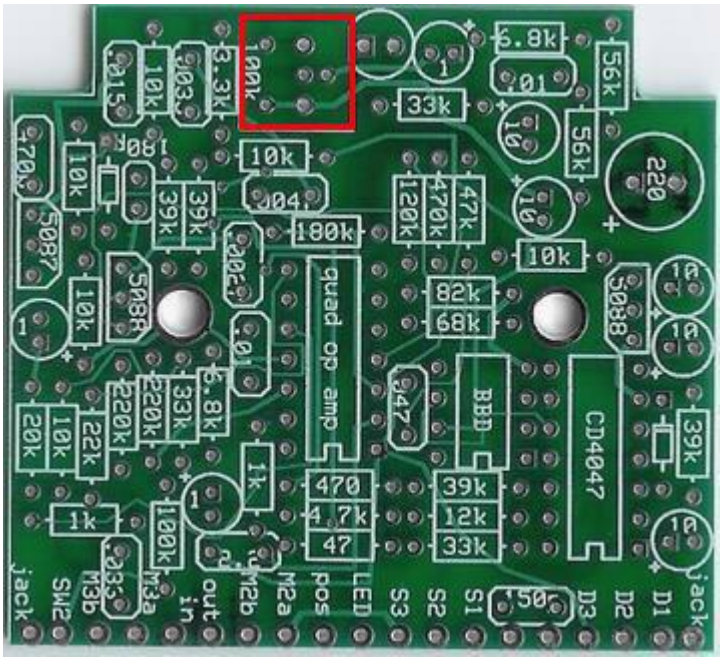


Step 3: Add the rest of the resistors. Resistors are not polarized so you can put them in either direction. You can pull the 22k resistor to modify to vibrato.

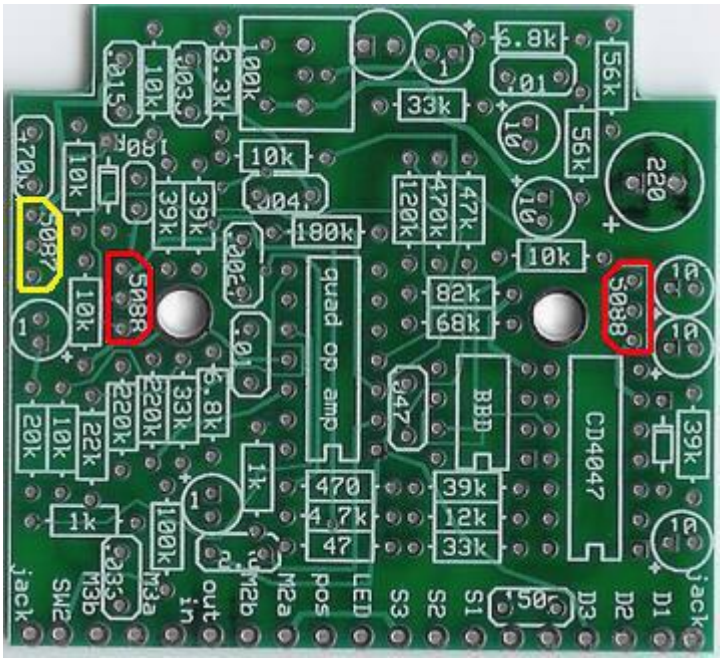


Step 4: Add the IC sockets. Do not add the actual chips themselves to the socket until the end. Make sure you line up the “u-shaped” notch in the socket to the ushaped notch on the PCB layout.

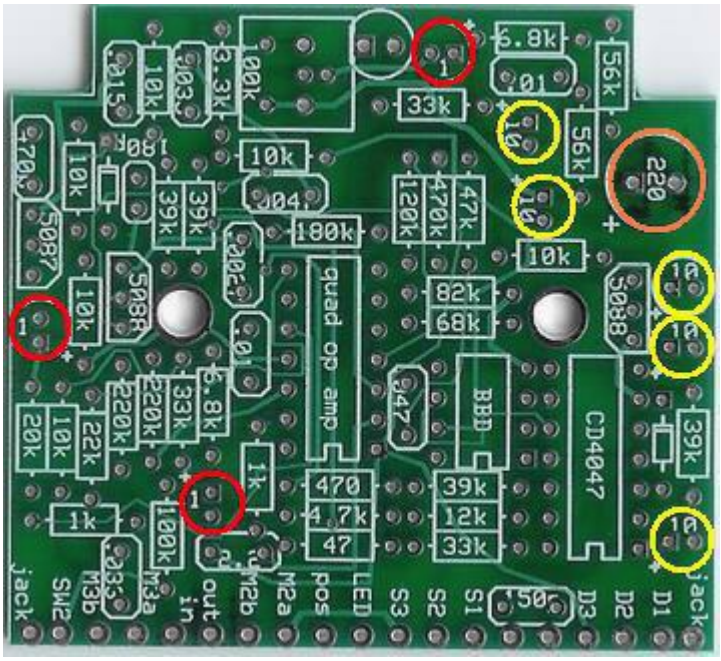
Step 5: Add the 100k trimpot.



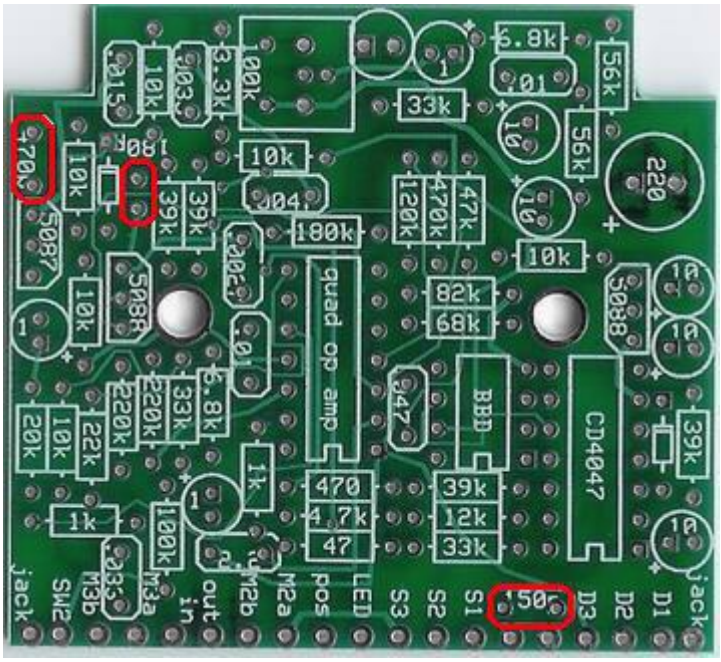
Step 6: Add the transistors. The 2N5088 are highlighted in red. The 2N5087 is highlighted in yellow. Be sure to orientate the transistors so that the flat sided match up with the circuit board layout. If you kit came with MPS series transistors, you should use the two MPS6521 in place of the 2N5088 and use the MPS65243 in place of the 2N5087



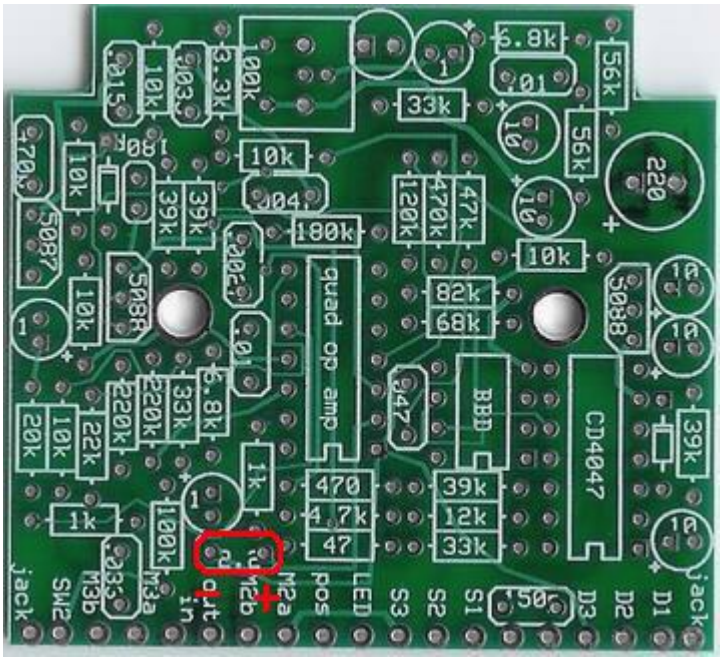
Step 7: Add the electrolytic caps. These are polarized. The positive lead will be the longer of the two and will go in the squar esolder pad.



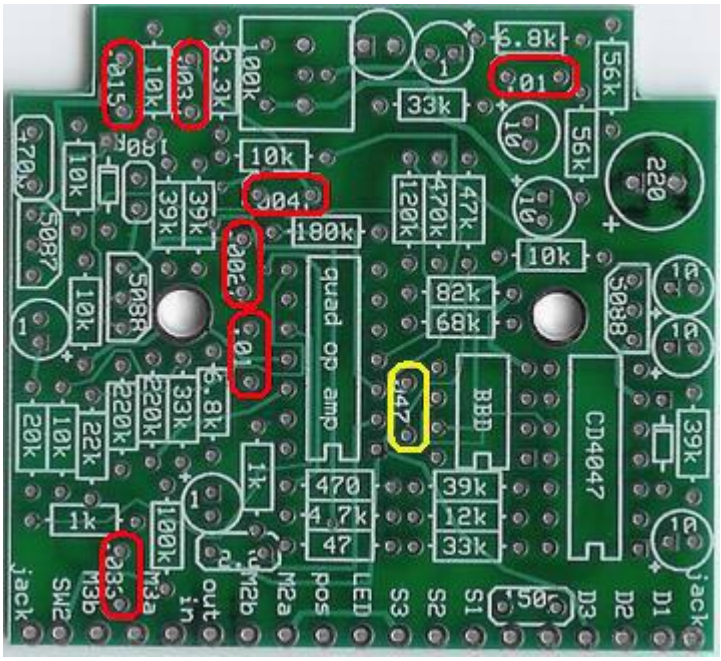
Step 8: Add the ceramic disc caps. These are not polarized.



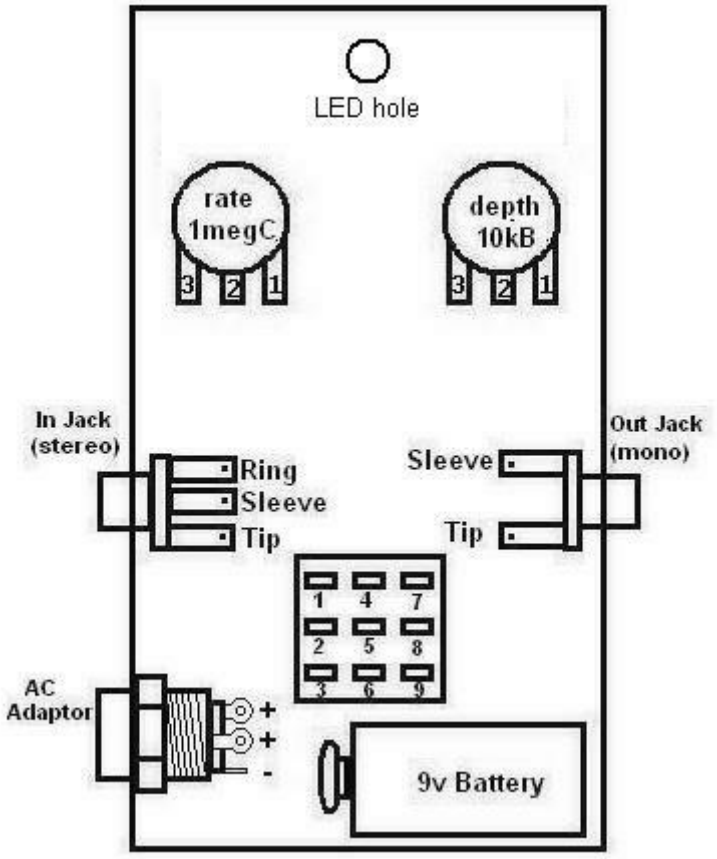
Step 9: Add the 2.2uf tantalum cap. This cap is polarized.Insert the positive end closer to the 47ohm resistor and the negative end closer to the 100k resistor. Sometimes this capacitor will have a longer lead on the positive end. If both the leads are the same length, then the postive end will have a "++" symbol over the postive lead.



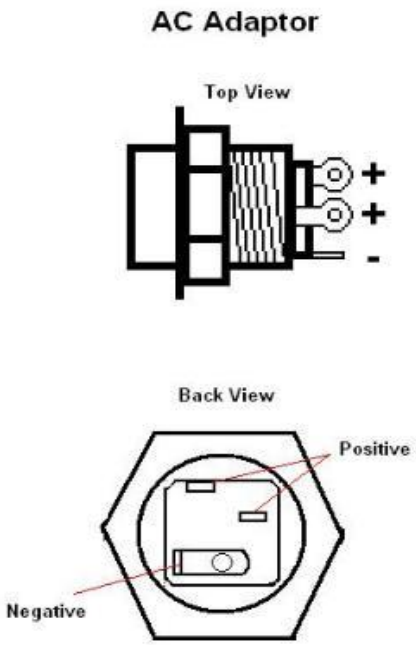
Step 10: Add the film caps . These are not polarized.



Assembly



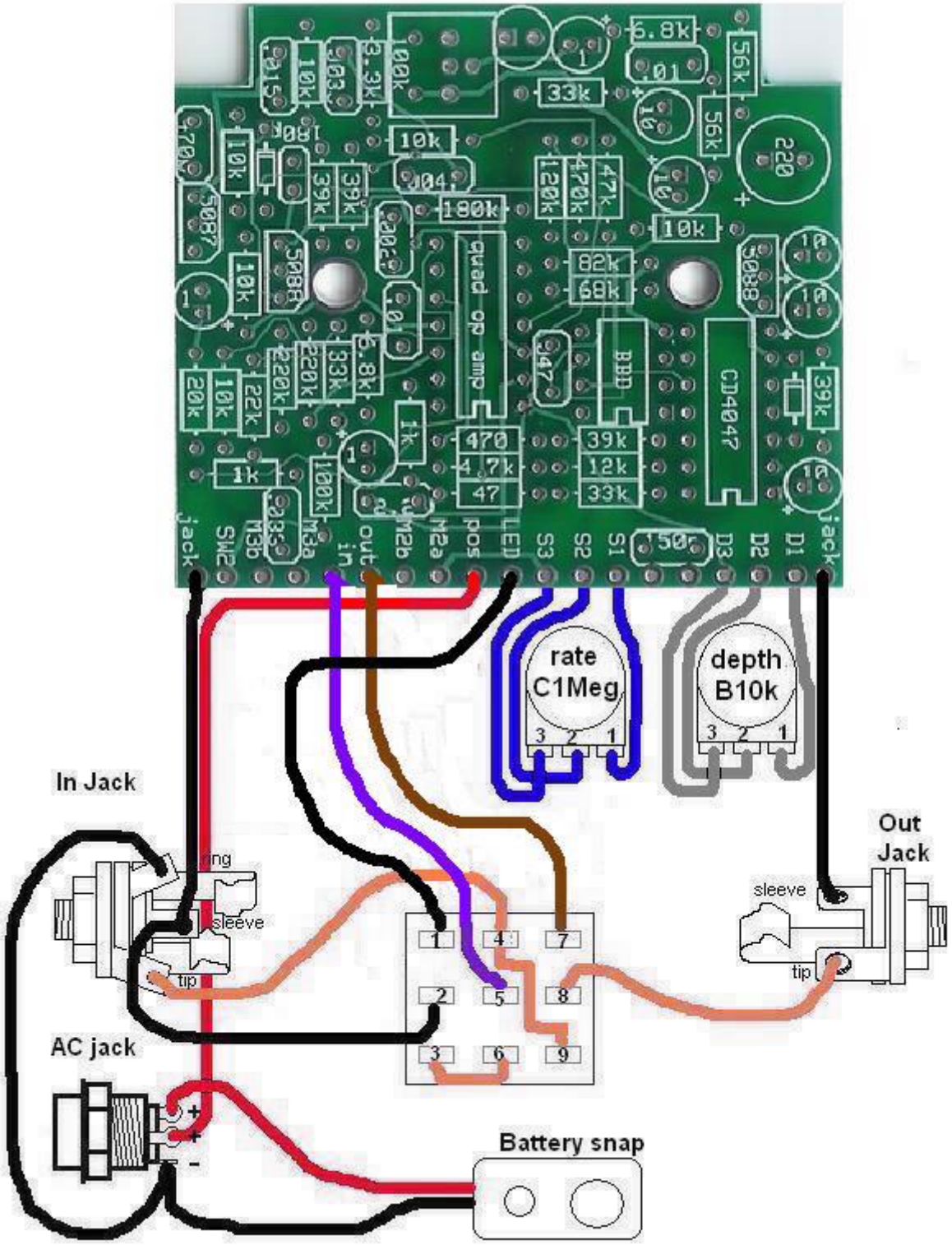
1. Install the jacks first. If you are looking down inside the enclosure, the mono jack goes on the right side and the stereo jack goes on the left. Place the washer on the outside of the enclosure. Use a 1/2" wrench to tighten.
2. Install the AC adaptor jack. The bolt goes on the inside. Use a 3/4" or 14mm wrench to tighten.



This is a “disconnect” ac adaptor jack. That means that when you have a battery connected and you plug in the adaptor, it will disconnect the battery. That is why there are 2 positive terminals. They are both connected when there is no plug in the jack, but when the plug is inserted only one of the terminals (the uppermost terminal in the “back view”) is connected to the sleeve of the adaptor. The advantage of this is that you can leave batteries in your pedals as a back up power source if you are a “working” musician and they will stay fresh even when you have the input jack plugged in as long as you keep the adaptor plugged in.

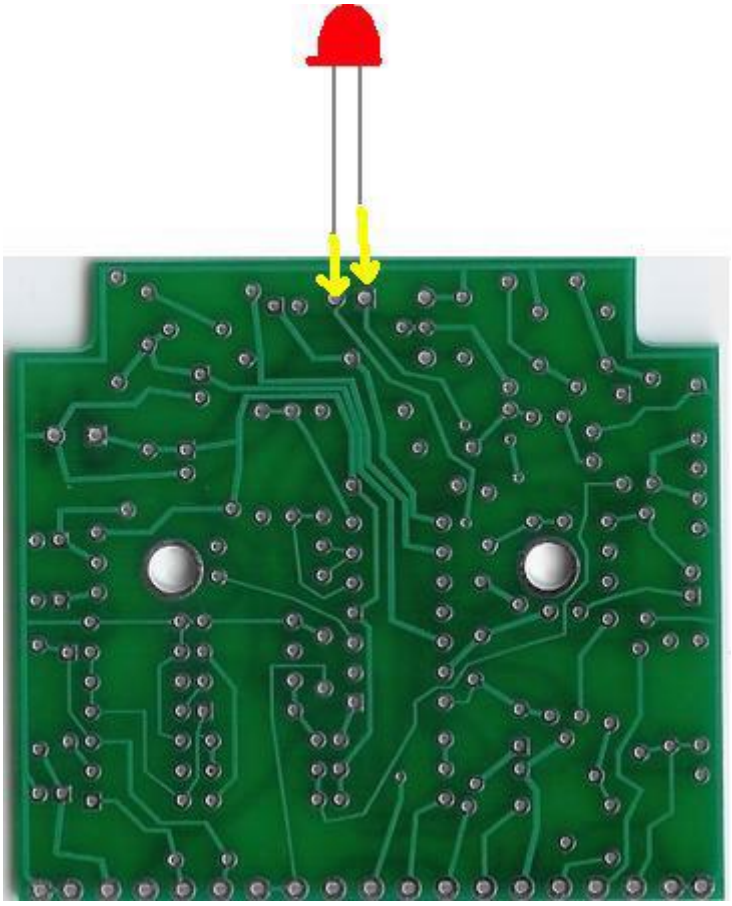
3. Install the potentiometers so that the solder lugs are pointing down towards the footswitch side of the enclosure. Use a 10mm wrench to tighten but only snug. Do not over tighten the pots.
4. Install the footswitch. The first bolt and metal washer go inside. The plastic washer and second bolt go on the outside. It does not matter which side you designate as the "leading edge" of the footswitch as long as you orientate it so that the flat sides of the solder lugs are aligned in horizontal rows, not vertical columns. Use a 14mm wrench to tighten.

analog chorus wiring layout



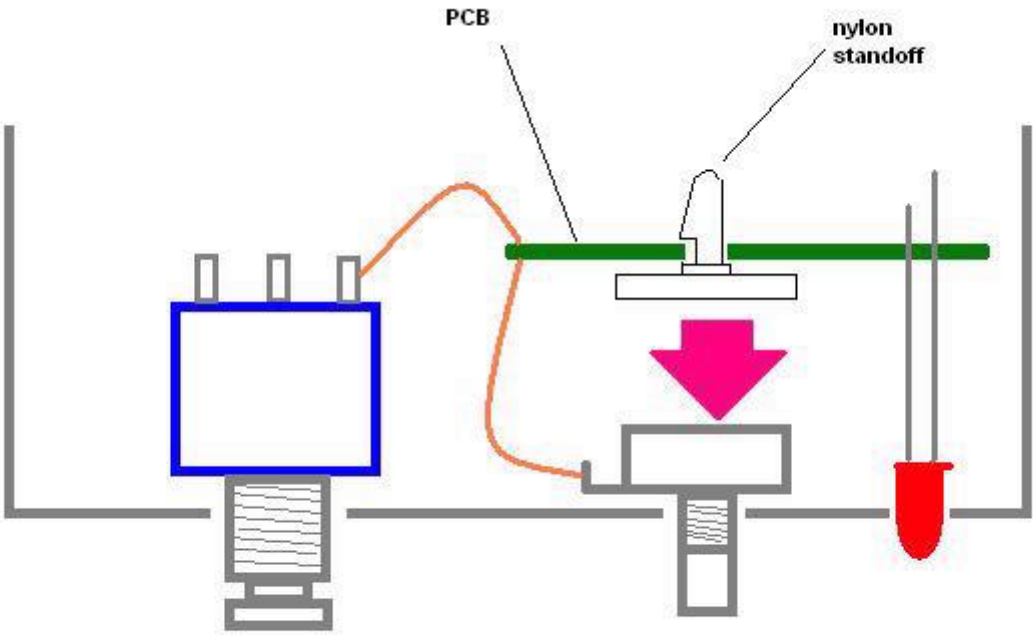
Installing the LED and mounting the circuit board

1. Insert the LED into its slot on the underside or solder side of the circuit board,but DO NOT SOLDER it yet. Make sure the anode(the long leg) goes in the round solder pad and the cathode(the short leg)goes in the square solder



2. Once you have the LED in place, bend the leads a little bit so that it will not fall out when you turn the PCB over.

3. Install the nylon circuit board standoffs into the mounting holes.
4. Remove the paper backings on the standoff to expose the self-adhesive tape.



5. Insert the LED bulb into the LED hole in the enclosure.

6. Secure the Standoffs to the back of the potentiometers.

7. Your LED should still be free to move up and down slightly. You probably do not want your LED sticking all the way out of the hole. So pull up on the LED legs till you have it properly positioned and then solder.

8. Clip off the excess LED leg wire.

If you've got any questions or problems that you can't figure out yourself, please visit <http://board.buildyourownlcone.com> for technical support.