B.Y.O.C Octafuzz Kit Instructions

B.Y.O.C. Octafuzz Parts Checklis

Resistors:
1 - ZERO ohm resistor (single black stripe)
1 - 220ohm (red/red/brown/gold)
1 - 470ohm (yellow/purple/brown/gold)
1 - 1k (brown/black/red/gold)
1 - 1.2k (brown/red/red/gold)
1 - 4.7k (yellow/purple/red/gold)
1 - 22k (red/red/orange/gold)
1 - 47k (yellow/purple/orange/gold)
1 - 180k (brown/gray/yellow/gold)
1 - 220k (red/red/yellow/gold)
1 - 680k (blue/gray/yellow/gold)
1 - 820k (gray/red/yellow/gold)
2 - 2.2M (red/red/green/gold)

Capacitors:
1 - 150pf ceramic disc (151 small orange)
1 - 0.001uf film (102)
2 - 0.1uf film (104)
2 - 33uf aluminum electrolytic
2 - 100uf aluminum electrolytic

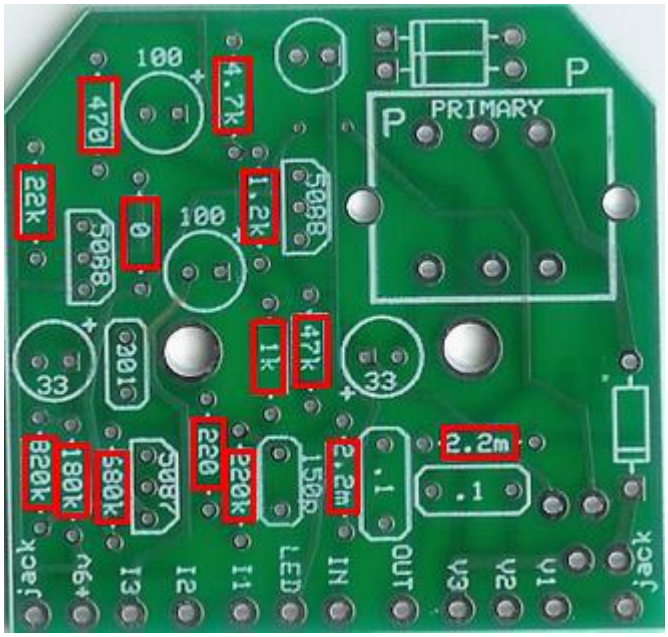
transistors:
2 - 2N5088
1 - 2N5087

Diodes:
2 - 1N34A germanium

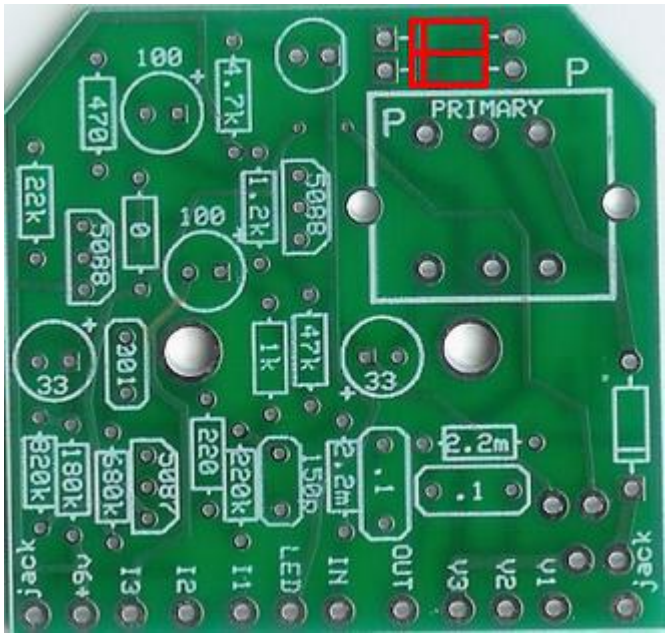
transformer:
1 - 42TM022 audio transformer

potentiometers:
1 - A100k “volume”
1 - B1k “intensity”
Hardware:
1 - b.y.o.c. ready to solder Octafuzz PCB
1 - predrilled enclosure w/screws
2 - knobs
2 - self-adhesive standoffs
1 - 1/4” mono jack
1 - 1/4” stereo jack
1 - 3PDT footswitch
1 - red LED
1 - battery snap
1 - AC adaptor jack
4- rubber bumpers
hookup wire

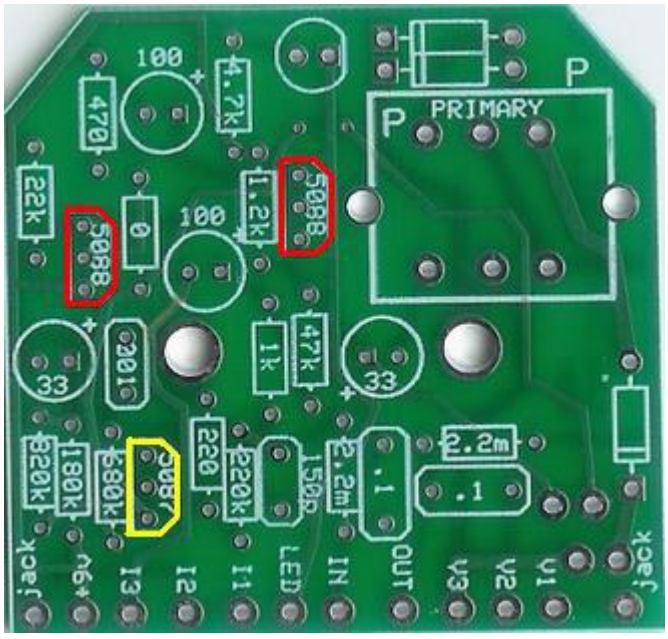
Populating the Circuit board



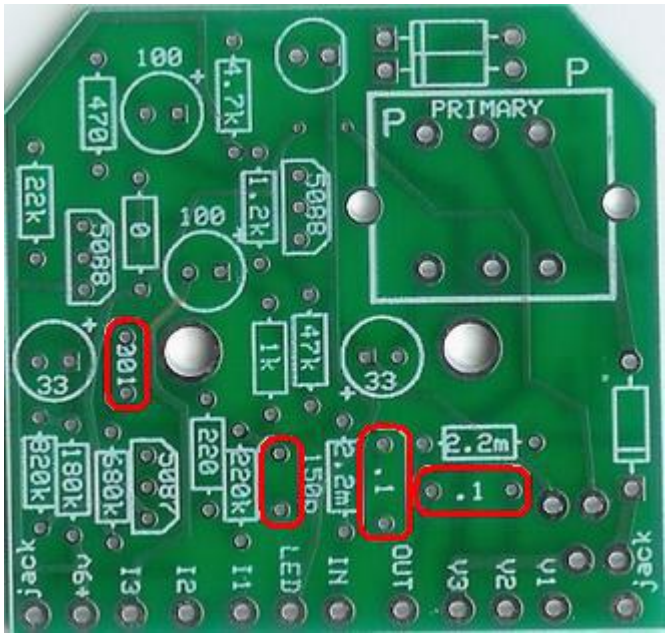
Step1: Add all resistors. Resistors are not polarized and can go in the PCB in either direction.



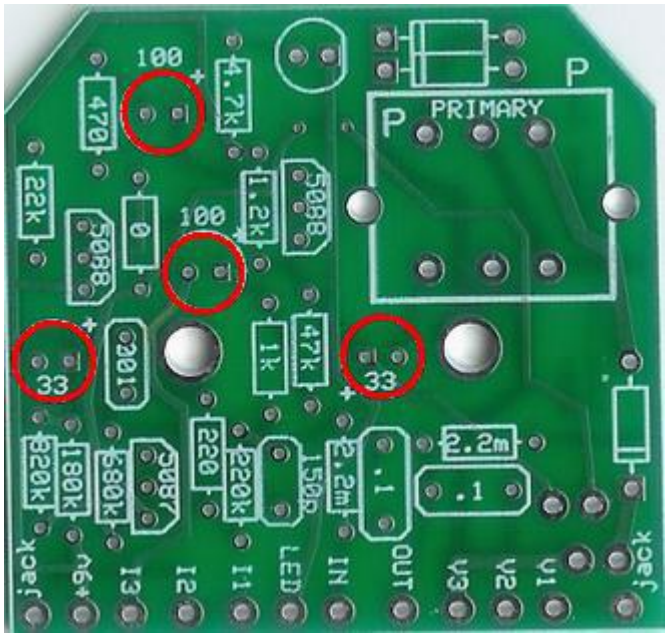
Step 2: Add the diodes. Make sure the end with the stripe (anode) matches the layout and goes in the square solder pad. Only add 2 diodes. Nothing goes in the 3rd diode slot.



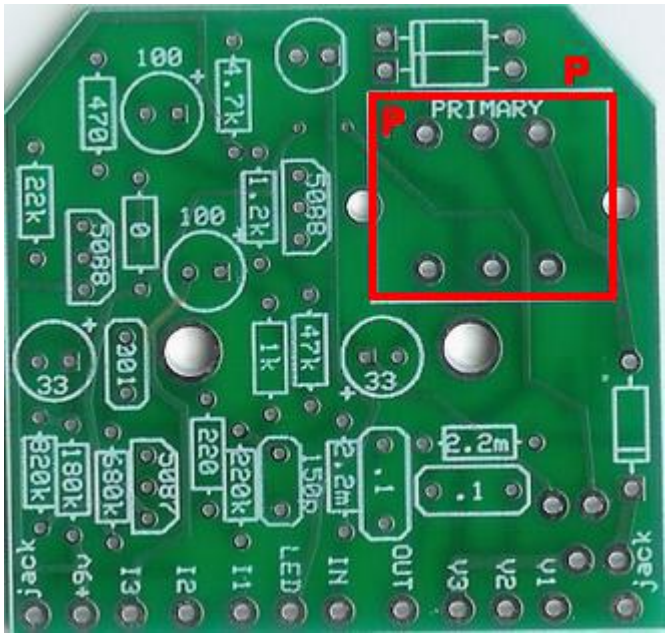
Step 3: Add the transistors. Make sure to match the flat side of the transistor up with the flat side on the PCB layout. Note that the slot for the 2N5087 is highlighted in yellow and the 2 2N5088's are highlighted in red.



Step4: Add the 3 film capacitors and one ceramic disc capacitor. These are not polarized and can go in the PCB in either direction.

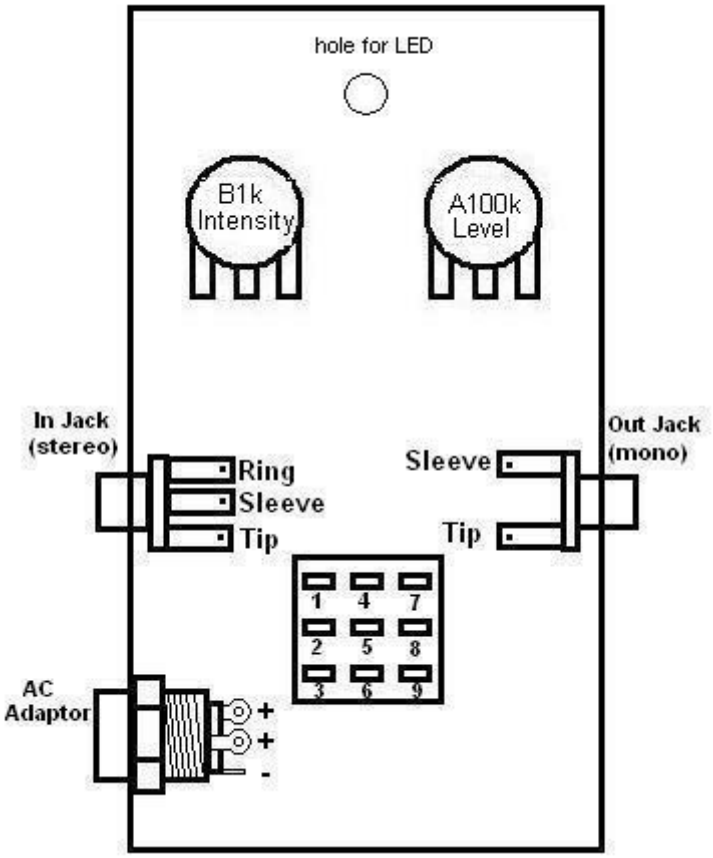


Step 5: Add the aluminum electrolytic capacitors. These are polarized. The positive end will have the longer lead and go into the square solder pad. The negative lead will be shorter and go into the round solder pad.

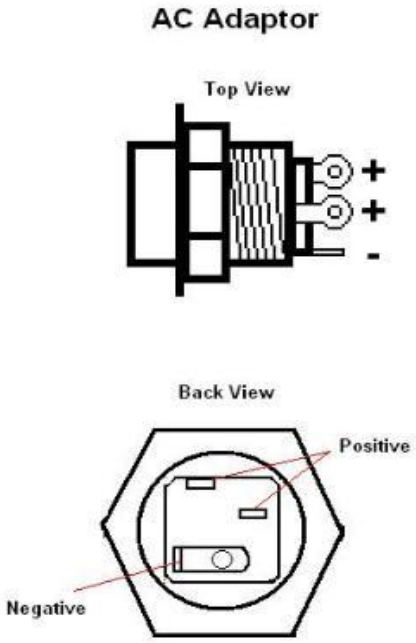


Step 6: Add the transformer. The primary side of the transformer will be marked with a “P”. This side goes on the side of the PCB with a “P” on it.

Assembly



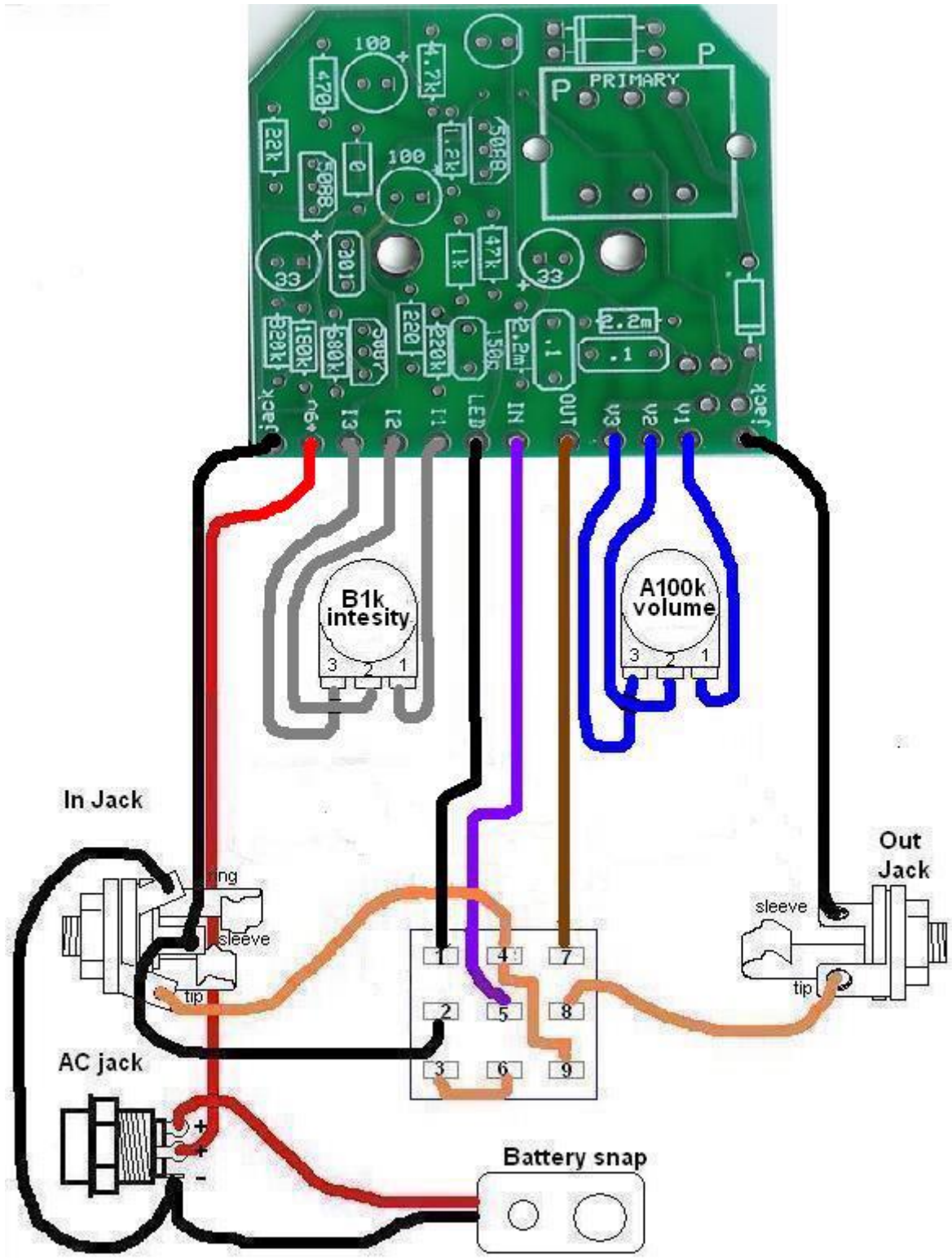
1. Install the jacks first. If you are looking down inside the enclosure, the mono jack goes on the right side and the stereo jack goes on the left. Place the washer on the outside of the enclosure. Use a 1/2" wrench to tighten.
2. Install the AC adaptor jack. The bolt goes on the inside. Use a 3/4"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

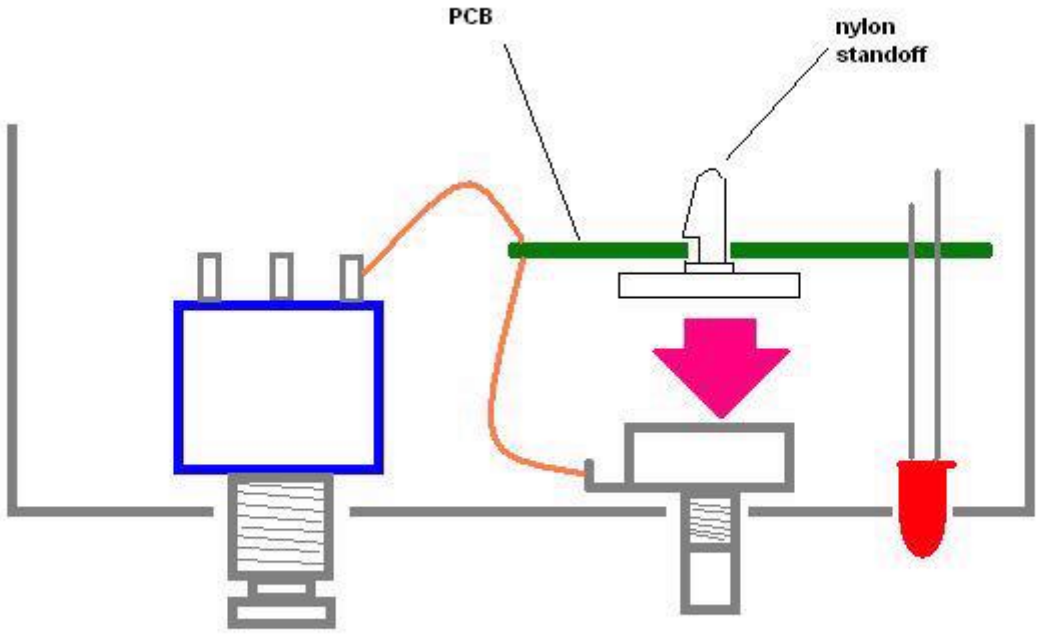
Wiring


PRIMARY
jack
9v+
i3
i2
i1
LED
IN
OUT
v3
v2
v1
jack
B1k
intesity
A100k
volume
In Jack
ring
sleeve
tip
Out
Jack
sleeve
tip
AC jack
+
+
-
Battery snap
1
4
7
2
5
8
3
6
9

Installing the LED and mounting the PCB

You will install the LED at the same time you mount the circuit board. This step can be a little tricky so if it's confusing, please watch the video instructions for this kit.

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 pad.
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.



Finishing up & Troubleshooting

Screw on the base of the enclosure and add the bumpers (unless you don't like bumpers on your pedals).

Is you pedal working? Here's a few common mistakes:

1. **No sound at all in either the bypass or on position.** If you aren't getting sound in bypass then you did not wire your footswitch correctly. Getting the bypass to work is the first thing you need to worry about.
2. **Bypass works and the LED lights up when "on", but there's no sound.** You either have a problem with the wiring from the in to the out of the circuit board and foot switch. . Or you have a problem with something on the circuit board.
3. **Bypass works, but there's sound when on and the LED does not come on**. You probably aren't getting any power to the circuit. .

If none of this helps, and you can't seem to figure out the problem, I always find that it is best to just set the pedal aside for a day or 2 and then come back to it with a fresh pair of eyes. Then the problem usually jumps right out at you….usually.

If you still can't get it working, start a thread on the BYOC forum and ask for help.
board.buildyourownclone.com