

B.Y.O.C. Shredder kit build instructions.

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Parts Checklist

Resistors: (resistors may be 1% metal film which have a light blue body or 5%carbon film with a light brown body)

- 1 100ohm (1%-brown/black/black/black/brown or 5%-brown/black/brown/gold)
- 1 1k (1%-brown/black/black/brown/brown or 5%-brown/black/red/gold)
- 1 3.3k (1% orange/orange/black/brown/brown or 5% orange/orange/red/gold)
- 1 4.7k (1%-yellow/purple/black/brown/brown or 5%-yellow/purple/red/gold)
- 1 6.8k (1% blue/gray/black/brown/brown or 5% blue/gray/red/gold)
- 2 10k (1%-brown/black/black/red/brown or 5%-brown/black/orange/gold)
- 2 33k (1% orange/orange/black/red/brown or 5% orange/orange/orange/gold)
- 3 47k (1% yellow/purple/black/red/brown or 5% yellow purple/orange/gold)
- 2 100k (1% brown/black/black/orange/brown or brown/black/yellow/gold)
- 1 220k (1% red/red/black/orange/brown or 5% red/red/yellow/gold)
- 1 680k (1% blue/gray/black/orange/brown or 5% blue/gray/yellow/gold)
- 2 1M (1%brown/black/black/yellow/brown or 5%brown/black/green/gold)
- 1 2.2M (1%red/red/black/yellow/brown or 5% red/red/green/gold)

Pots:

- 3 100kA pot (gain, volume, bass)
- 1 25kB pot (treble)
- 1 100kB pot (contourl)

Capacitors:

- 1 47pf ceramic disc (code may read "470"small round orange)
- 1 100pf ceramic disc (code may read "101"small round orange)
- 2 .001uf film(102)
- 1 .0022uf film(222)
- 1 .01uf film(103)
- 2 .022uf film(223)
- 2 .047uf film(473)
- 2 .1uf film (100n)
- 5 .22uf film (220n)
- 1 47uf aluminum electrolytic
- 1 100uf aluminum electrolytic

Diodes:

- 2 1N914 or 1N4148(small orange with black stripe)
- 1 1N4001 (large black with silver stripe)

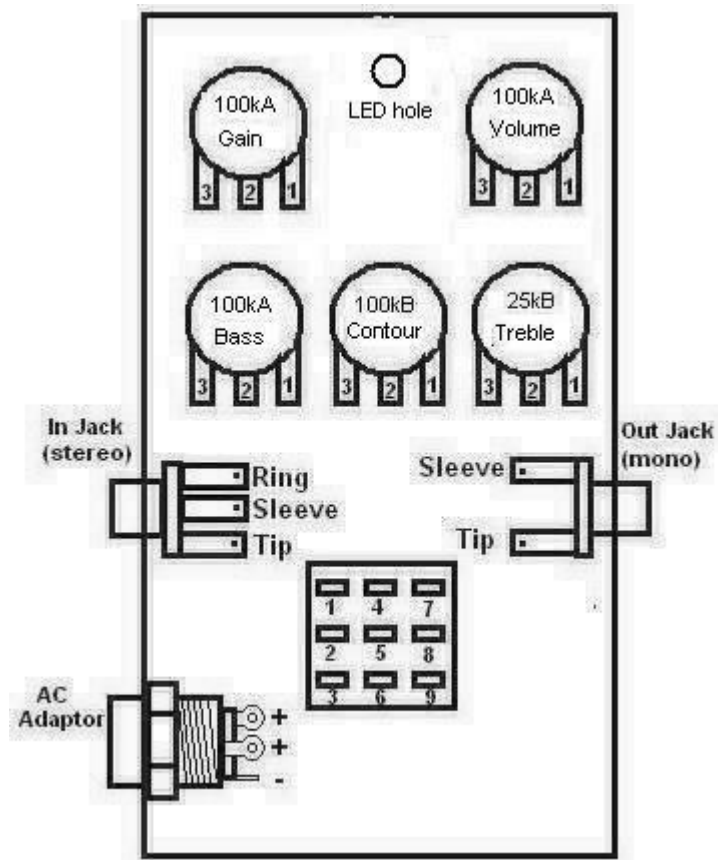
IC's:

- 1 TL074
- 1 14 pin socket

Hardware:

- 3 self adhesive nylon standoffs
- 5 knobs
- 1 heavy duty battery snap
- 1 Red T 1 3/4 (5mm)LED
- 1 3PDT footswitch
- 1 1/4" mono jack
- 1 1/4" stereo jack
- 1 AC adaptor jack
- 1 125b size enclosure
- 1 Shredder PCB
- Hook-up wire

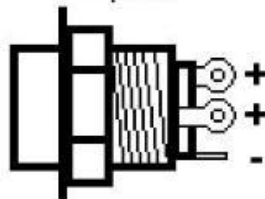
Assembly



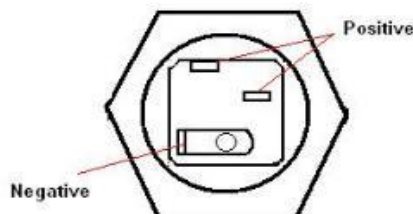
1. Install the jacks first. If you are looking down inside the enclosure, the mono jack goes on the right side and the stereo jack goes on the left. Place the washer on the outside of the enclosure. Use a 1/2" wrench to tighten.
2. Install the AC adaptor jack. The bolt goes on the inside. Use a 3/4"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

AC Adaptor

Top View



Back View

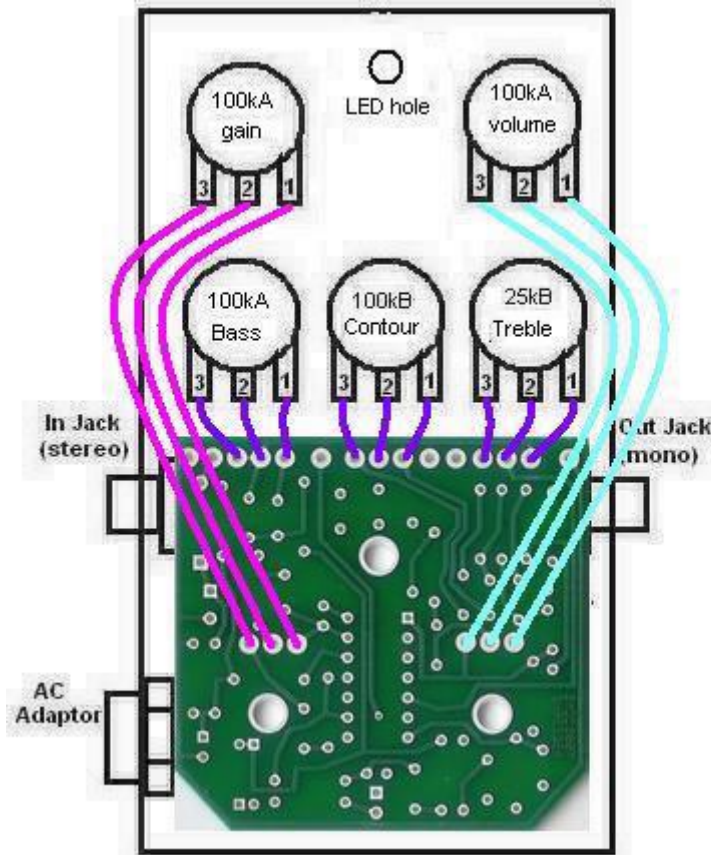


This is a “disconnect” ac adaptor jack. That means that when you have a battery connected and you plug in the adaptor, it will disconnect the battery. That is why there are 2 positive terminals. They are both connected when there is no plug in the jack, but when the plug is inserted only one of the terminals (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

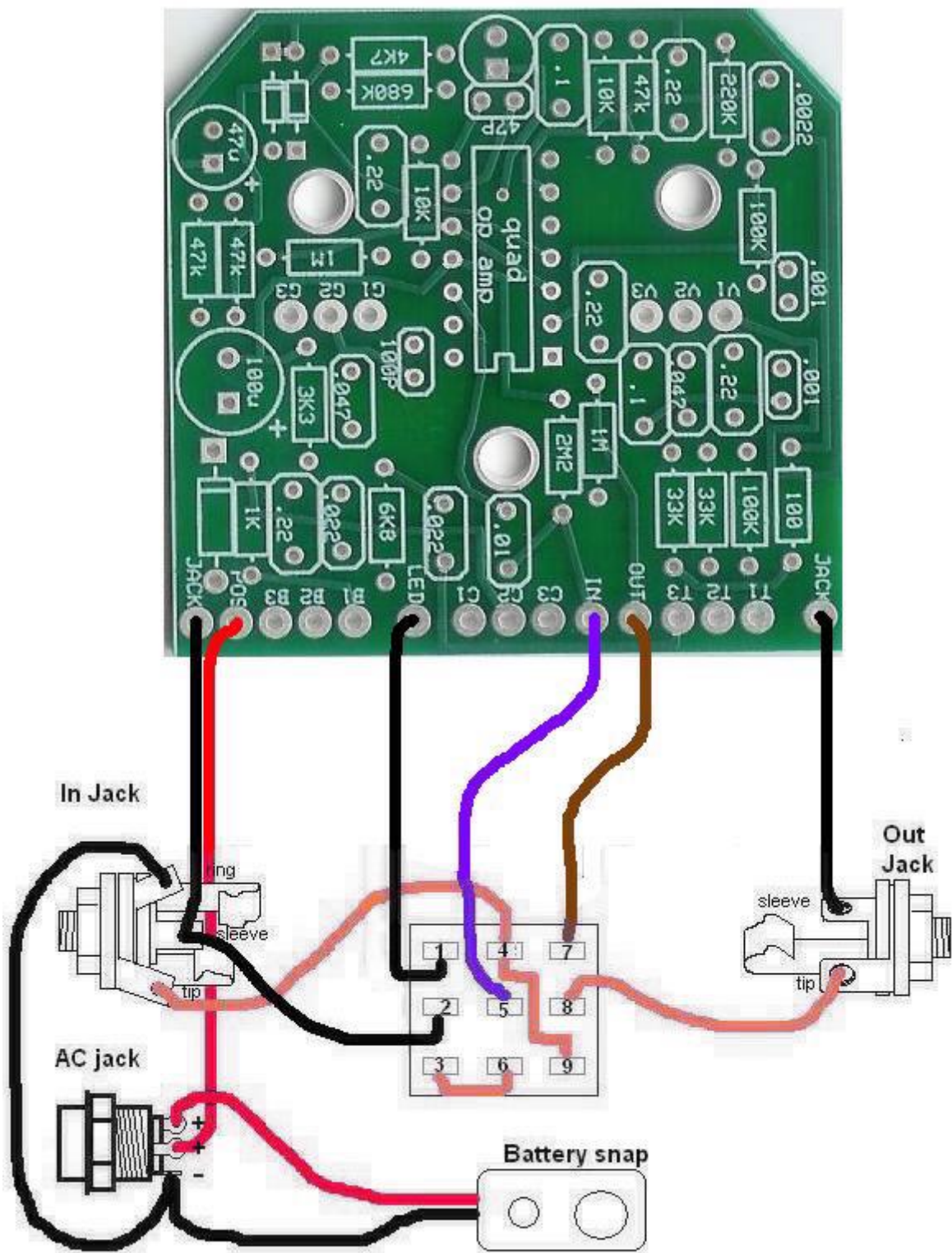


Step1: Wire the pots to the PCB. This diagram shows the wiring done from the bottom side of the PCB. The PCB eyelets are all double sided, so you can “thread” the wires in from the bottom side and solder on the top. But be careful to make sure that you are matching up the correct solder eyelet with the correct pot lug.

Lets take the Gain knob for example. The corresponding solder eyelets for the Gain pot all start with the letter “G”. G1, G2, and G3. G1 gets connected to lug 1 of the gain pot. G2 gets connected to lug 2 of the gain pot. And G3 gets connected to lug 3 of the gain pot.

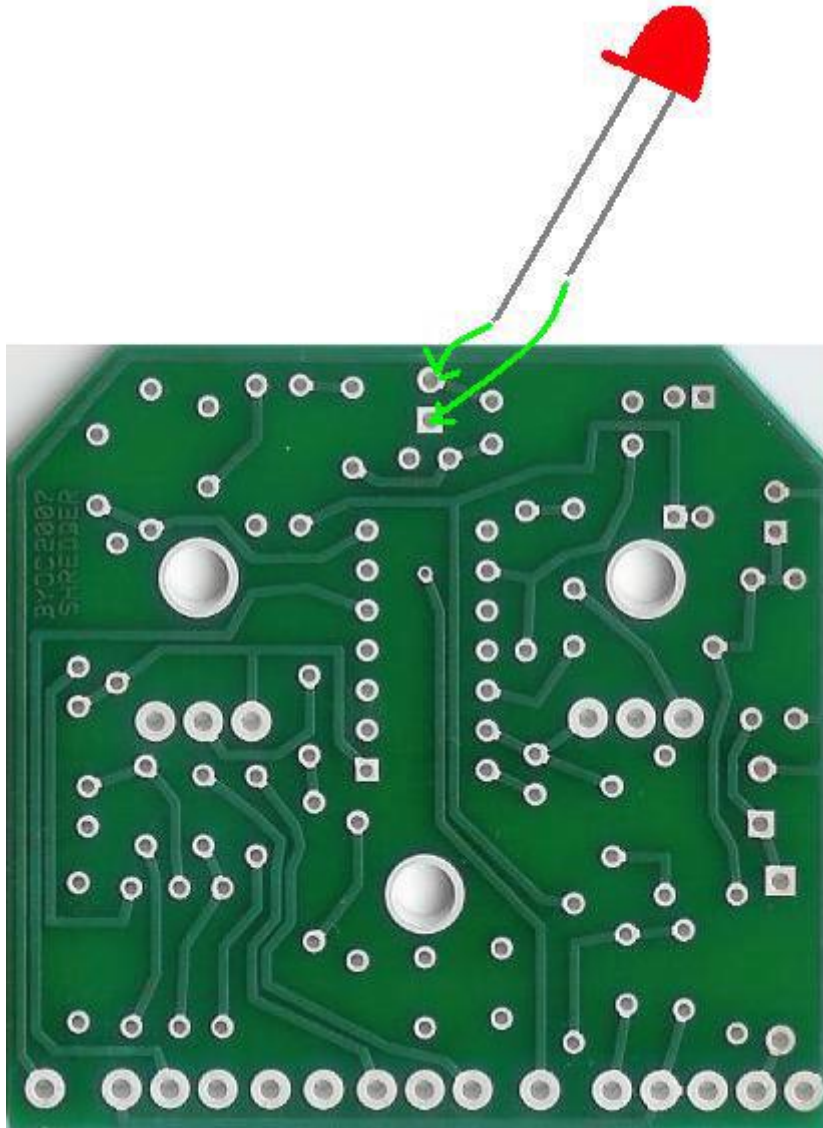
Then we have the Volume knob. All the corresponding solder eyelets for the Volume pot start with the letter “V”. V1, V2, and V3. V1 gets connected to lug 1 of the Volume pot. Ect, ect, ect.....

Step 2. Now wire up the rest of the pedal following the diagram below. The labelling on the solder eyelets should make it fairly intuitive, but follow along with the video instructions if it is not clear to you.



Installing the LED

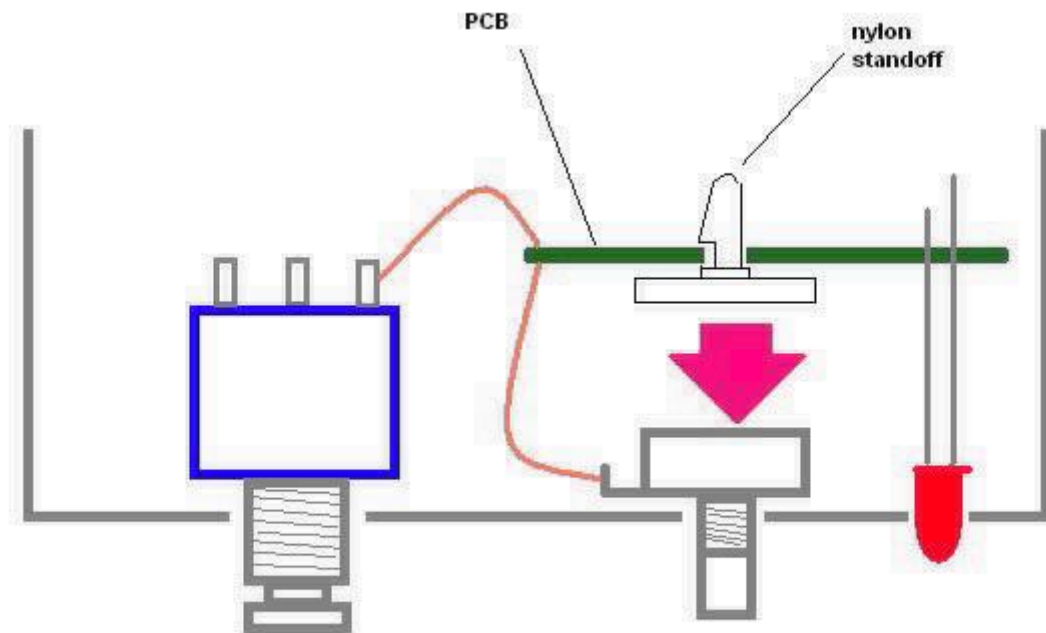
Insert the LED into the **UNDERSIDE** of the PCB, but **DO NOT SOLDER IT**. Make sure the longer lead goes in the round hole and the shorter lead goes in the square hole. No, this is not a typo. Yes, this is contradictory to the way most other components go in the circuit board.



The positive end will have the longer lead just like the other components, but this time it goes in the round solder pad. The negative lead will have the shorter lead, but this time it will go in the square solder pad. Notice that the negative side is flat. On diodes the negative side is called the cathode and the positive side the anode.

1. Insert the LED into its slot on the underside or “solder side” of the circuit board, but **DO NOT SOLDER** it yet.
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 Touches

1. Install the IC. You must line up the U-Shapes!!!! Some IC's won't have a U-shape. If they don't then they will have a small dot in one corner. This dot represents pin #1. The dot on the IC should be on the same side as the U-shape of the socket. IF YOUR IC HAS BOTH A U-SHAPED NOTCH AND A DOT ALWAYS USE THE U-SHAPED NOTCH TO ORIENTATE THE IC.
2. Install the base of the enclosure with the 4 screws that came with your kit.
3. Add the rubber bumper feet...unless you're a velcro person.

If you've got any problems that you can't figure out yourself, visit

www.board.buildyourownclone.com

for technical support.