

B.Y.O.C. Mighty Mouse Kit Instructions

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Parts Checklist for Mighty Mouse Kit

Resistors:

- 2 - 47ohm (yellow/purple/black/gold) or (yellow/purple/gold/brown)
- 1 - 560ohm (green/blue/brown/gold) or (green/blue/black/black/brown)
- 2 - 1k (brown/black/red/gold) or (brown/black/black/brown/brown)
- 1 - 1.5k (brown/green/red/gold) or (brown/green/black/brown/brown)
- 1 - 4.7k (yellow/purple/red/gold) or (yellow/purple/black/brown/brown)
- 1 - 10k (brown/black/orange/gold) or (brown/black/black/red/brown)
- 2 - 100k (brown/black/yellow/gold) or (brown/black/black/orange/brown)
- 3 - 1M (brown/black/green/gold) or (brown/black/black/yellow/brown)

Capacitors:

- 1 - 33pf ceramic disc (33) or (330)
- 1 - 100pf ceramic disc (101)
- 1 - .001uf film (102)
- 1 - .0033uf film (332)
- 1 - .01uf film (103)
- 2 - .022uf film (223)
- 2 - 1uf aluminum electrolytic
- 1 - 2.2uf aluminum electrolytic
- 2 - 4.7uf aluminum electrolytic
- 1 - 100uf aluminum electrolytic

Diodes:

- 3 - 1N914 (small orange)
- 2 - 1N4001 (black with silver stripe)
- 1 - 1N4002 (black with silver stripe)
- 2 - 3mm yellow LED's

IC:

- 1 - LM308 single op amp.

Transistors:

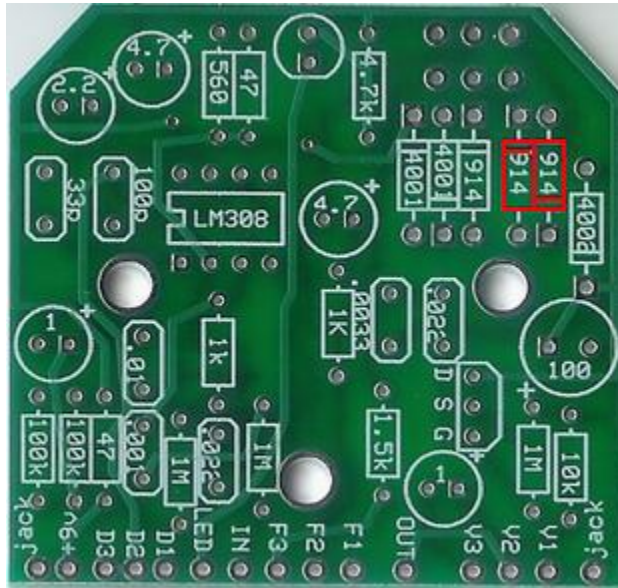
- 1 - 2N5458

Potentiometers:

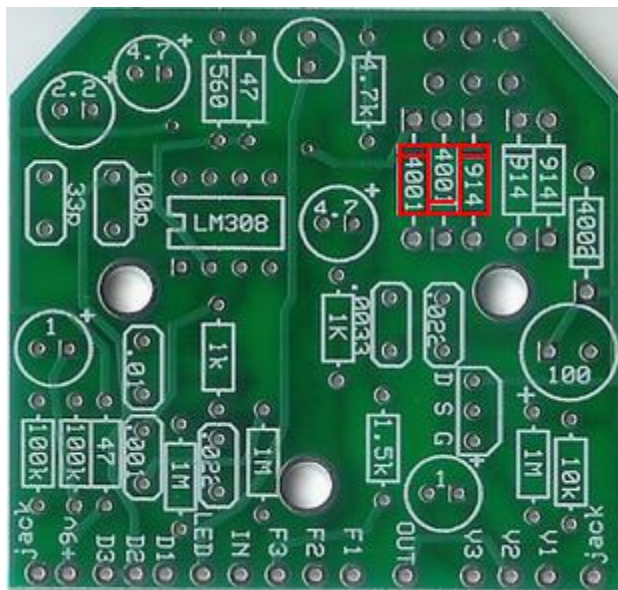
- 3 - A100K Audio

Hardware:

- 1 - enclosure w/ 4 screws
- 1 - mighty mouse kit circuit board
- 1 - 3pdt footswitch
- 1 - DPDT on-off-on toggle switch
- 3 - knobs
- 1 - AC adaptor jack
- 1 - 1/4" stereo jack
- 1 - 1/4" mono jack
- 1 - battery snap
- 1 - red LED
- 3 - nylon standoffs
- hook-up wire

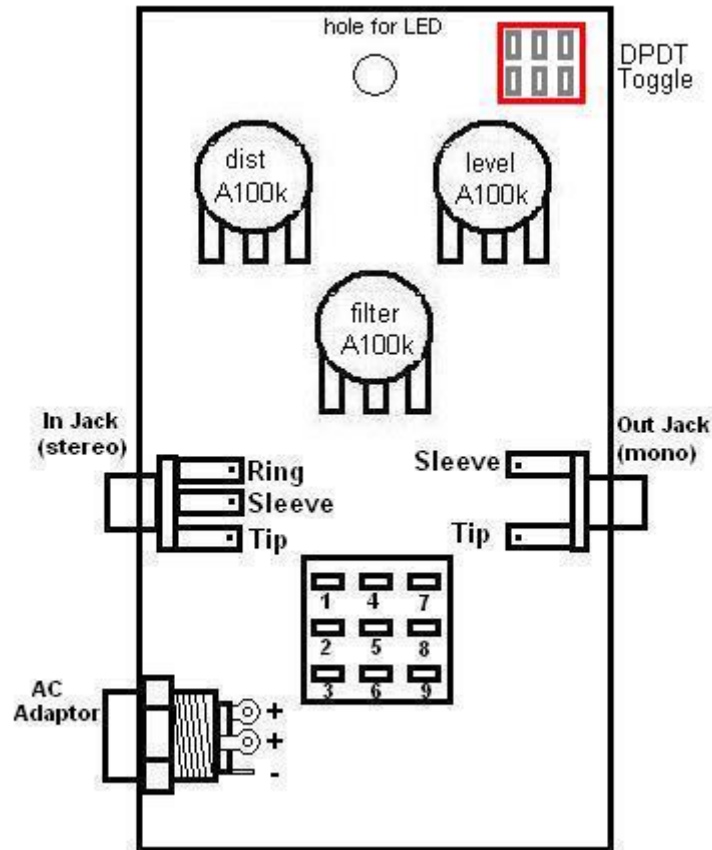


Step3: Add the “vintage” diodes. Use the 1N914 for the original rat specs or use the yellow 3mm LEDs for turbo rat specs. If you use the yellow LEDs, the longer lead goes in the square solder pad(the side with the stripe) and the shorter lead goes in the round solder pad.

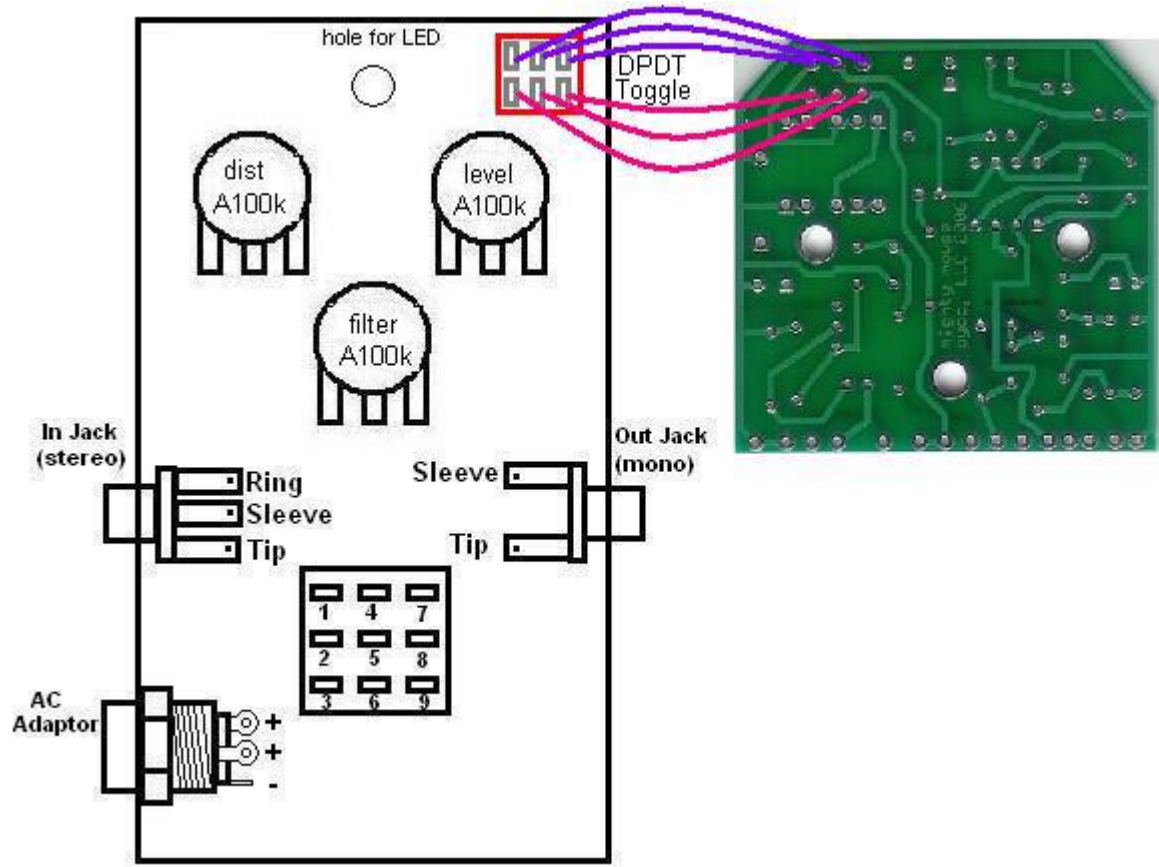


Step 4: Add the “Overdrive” diodes. The asymmetrical clipping combination of the one 1N914 and two 1N4001's in series is suggested, but if you have experience in experimenting with the clipping section of overdrive circuits and have a preference, this is where you would apply that. Keep in mind that if you want to use symmetrical clipping you will need to jumper one of the 1N4001 slots since they are wired in series at the PCB.

Assembly



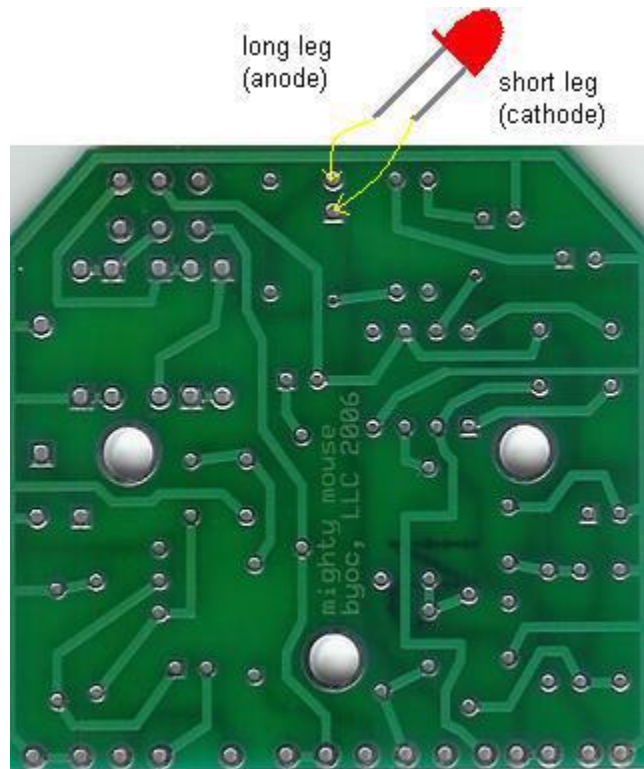
1. Install the jacks first. If you are looking down inside the enclosure, the mono jack goes on the right side and the stereo jack goes on the left. Place the washer on the outside of the enclosure. Use a 1/2" wrench to tighten.
2. Install the AC adaptor jack. The bolt goes on the inside. Use a 3/4" or 14mm wrench to tighten.
3. Install the potentiometers so that the solder lugs are pointing down. The A100k distortion pot goes on the left side and the A100k (volume) pot goes on the right and the A100k Filter pot goes in the middle. The washers go on the outside. 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.
5. Install the DPDT toggle switch. REMOVE THE EXTRA NUT AND WASHER so that the body of the switch is flush against the inside of the enclosure. There should be no nut or washer on the inside of the enclosure. Only on the outside.



Wire the circuit board to the DPDT toggle switch. These wires should be as short as you can possibly make them. In fact, you could even use clippings from the resistors if you wanted and mount/solder the switch similar to the way you would do to the LED (described in the next step), but use the hookup wire if you feel more comfortable with that.

Installing the LED and Mounting the Circuit Board

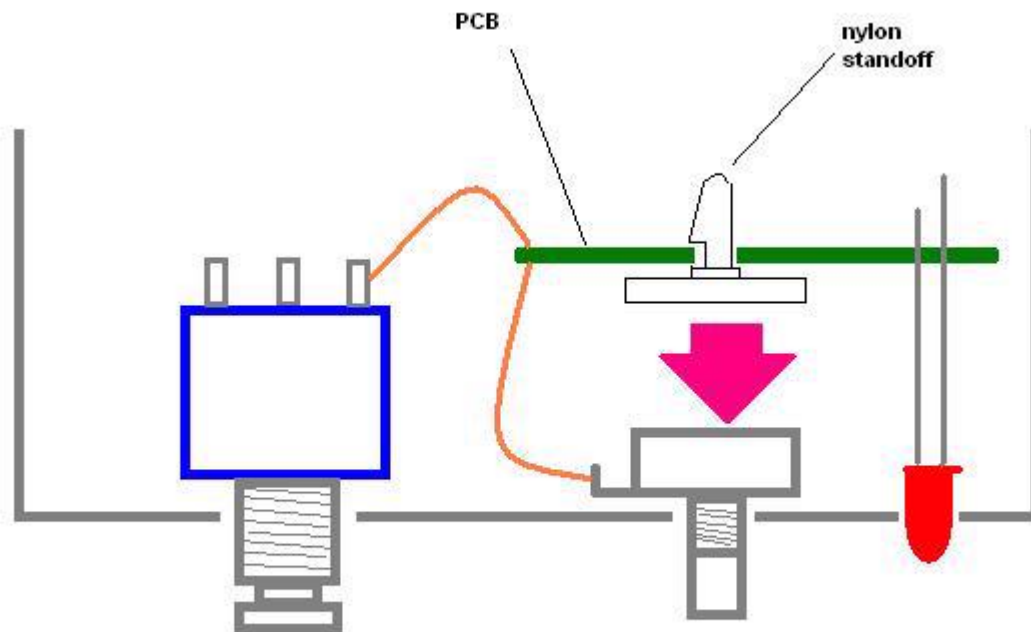
1. Insert the LED into its slot on the underside or solder side of the circuit board, but DO NOT SOLDER it yet. Make sure the anode (the long leg) goes in the round solder pad and the cathode (the short leg) goes in the square solder



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.

Finishing Touches

Install the base of the enclosure with the 4 screws that came with your kit. 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 board.buildyourownclone.com for technical support

Schematic

b.y.o.c. mighty mouse

