



MR. Quack Kit Building Manual



Effect Pedal Kits:









MR. Quack

Mr. Quack envelope filter is a modded version of the Dr. Q, mostly to make it more sensitive to the input signal. This envelope filter is really “punchy” and is perfect if you’re looking for a funky sound, either if you play guitar or bass.

An Attack potentiometer has also been added to make the Mr. Quack more versatile, allowing you to set how you want the envelope filter to react to your playing dynamics. The Range knob sets the range of the frequency sweep: more range translates into more funkyness.

The Mr. Quack is a really fun effect pedal, and if you’re looking for an envelope filter you should definitely give it a try!

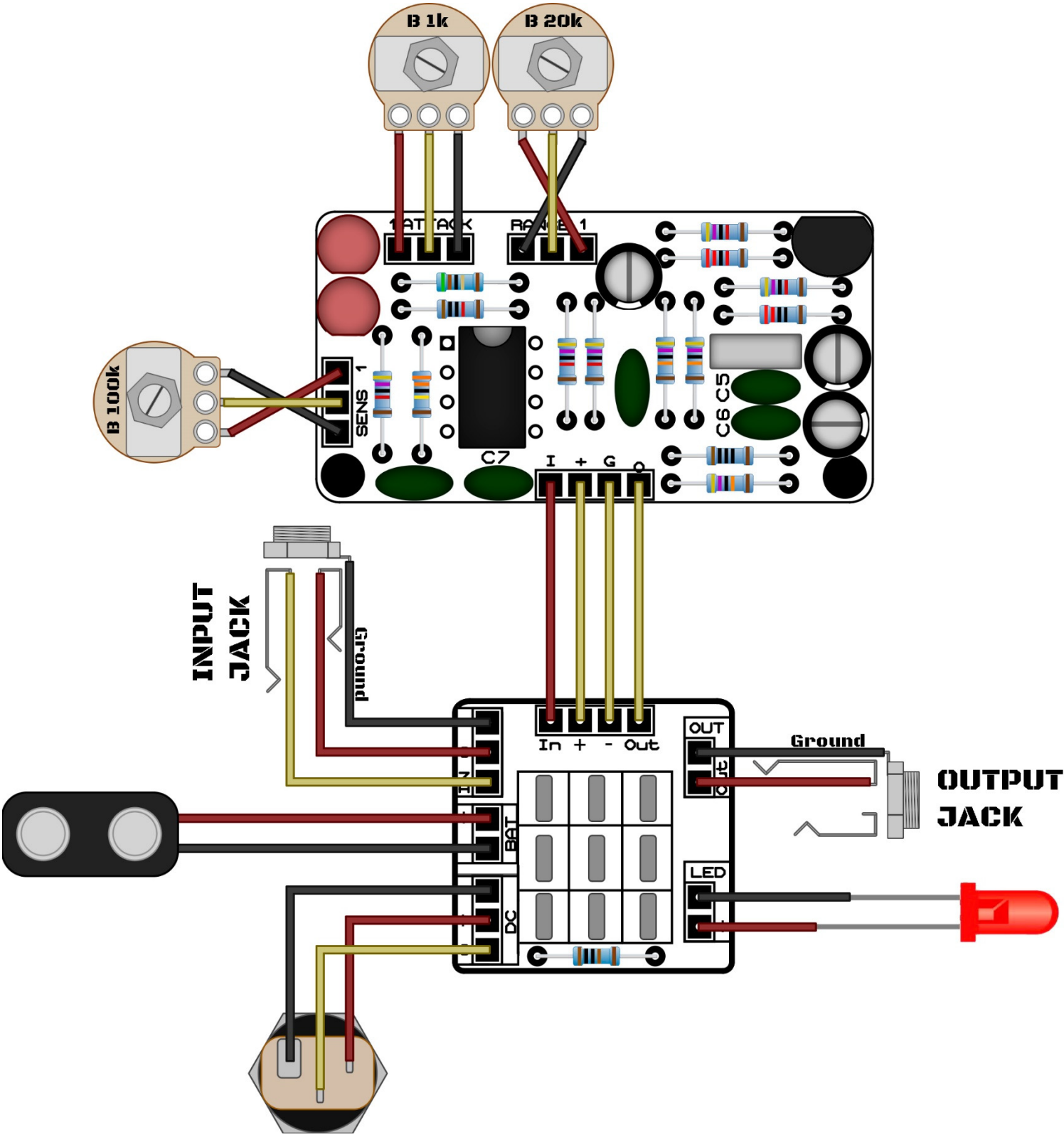
BOM (1/2)

Resistors (14)				Capacitors (9)		
5	R1, R2, R11, R12, R15	47k		2	C1, C3	10n
1	R3	3.3M		1	C2	22u (electrolytic)
1	R4	51		1	C4	100n
1	R5	22k		2	C5, C6	4.7n
1	R6	220		1	C7	1n
1	R7	10k		2	C8, C9	47u (electrolytic)
3	R8, R9, R10	470k				
1	R13	100				

BOM (2/2)

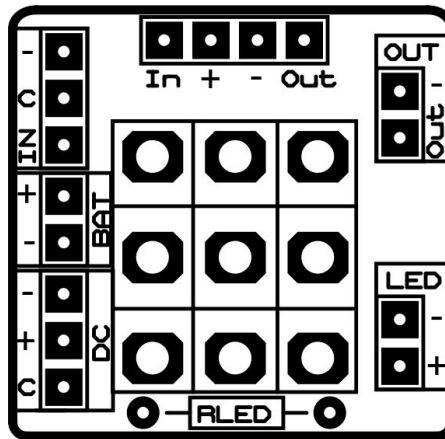
Diodes, Transistors and ICs			Generic Parts and Potentiometers		
1	U1	TL072	1	Battery clip	
1	Q1	2N3904	1	DC Jack	
2	L1, L2	Red LED 5mm	1	RLED	1k LED resistor
			1	LED Bezel	
			1	3PDT	
			2	IN, OUT	6.35mm Jacks
			1	1k Linear (B) Potentiometer	Attack
			1	20k Linear (B) Potentiometer	Range
			1	100k Linear (B) Potentiometer	Sens

Component Placement

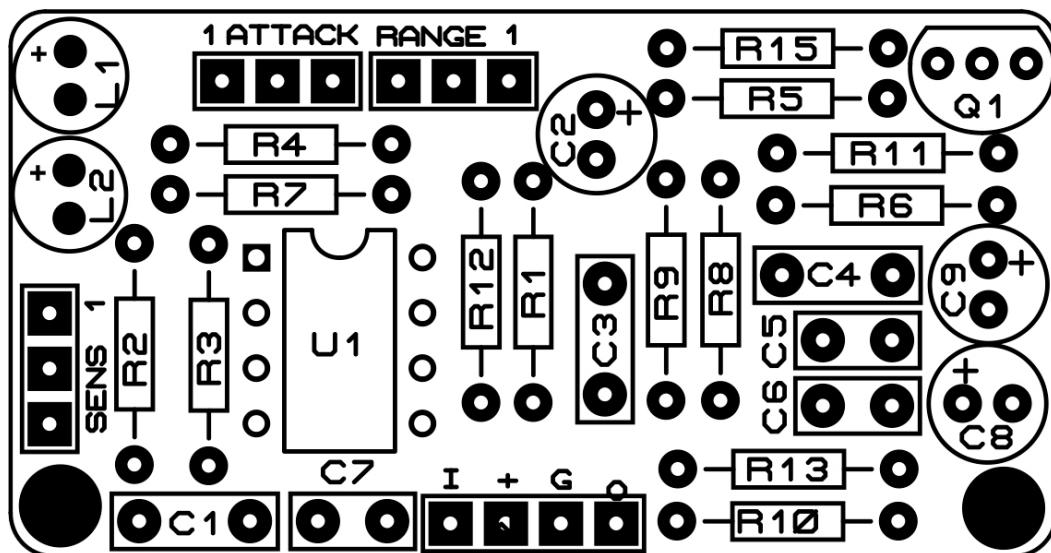


Board Layouts

3PDT PCB

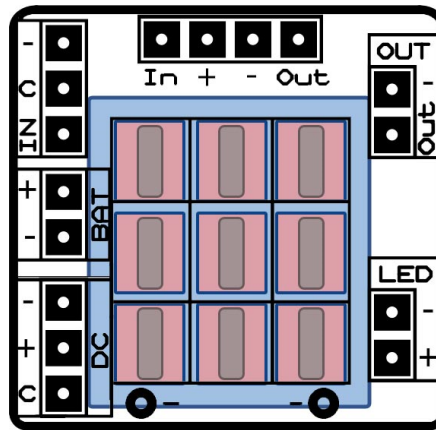


Effect PCB

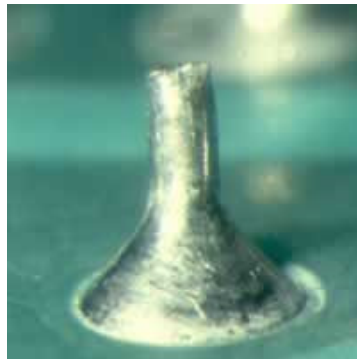


Building Tips

- 1- Pay attention to the **orientation of the 3PDT**! In the following picture you can see how the 3PDT pins should be positioned (inserting the pins in the holes can be a bit tight to avoid movement while soldering):



- 2- For a proper soldering you just have to apply the **right amount of solder wire**. A right solder joint should have a concave shape around the joint and look like this:

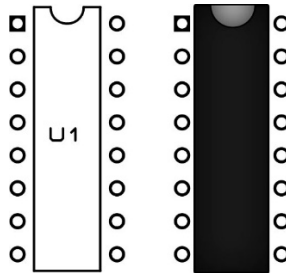


- 3- Don't apply too much heat! When soldering, the time you hold the solder iron against the joint should be **as short as possible** to avoid damaging any part (a few seconds should be enough). If you can't get a solder joint right, **let it cool** a bit before trying again.
- 4- If having troubles with the building, checking the schematic in the last page will help you find **where the audio signal stops**. When you find the spot, check out that **everything around that joint is ok** (components placed at their right place, solder joints...).

Building Tips

5- Pay attention to the **parts that have a polarity** and make sure they are connected as in the component placement picture:

- **ICs** (they have a small dot or indication that must fit the indication in the board)



- **Electrolytic capacitors** (longer pin is connected to the “+” hole):



- **Diodes** (check for the mark and make it fit with the one in the PCB):



- **Leds** (longer pin is connected to the “+” hole)



- **Transistors** (inserted to fit the drawing in the PCB)



To avoid any issue, check the latest building manual. Use the pictures only as a reference! Colors/shapes can change slightly, always check the part polarity, resistor values, potentiometer placement... before soldering.

Schematic

