

Big Muff π

Everyone loves a
big chunk of muff

PedalParts.co.uk

BOM

| | 3rd (70s) | Green Russian | Black Russian | Civil War Russian | Triangle | Ram's Head | Violet Ram's Head |
|-------------|-----------|---------------|---------------|-------------------|----------|------------|-------------------|
| R1 | 39K | 39K | 39K | 39K | 3K3 | 39K | 33K |
| R2 | 100K | 100K | 100K | 100K | 82K | 47K | 100K |
| R3 | 470K | 470K | 470K | 470K | 390K | 470K | 470K |
| R4 | 100R | 390R | 390R | 390R | 820R | 120R | 100R |
| R5 | 15K | 12K | 12K | 12K | 22K | 10K | 12K |
| R7 | 1K | 1K | 1K | 1K | 1K | 1K | 560R |
| R8 | 8K2 | 10K | 10K | 10K | 8K2 | 10K | 8K2 |
| R9 | 100K | 100K | 100K | 100K | 82K | 100K | 100K |
| R10 | 470K | 470K | 470K | 470K | 390K | 470K | 470K |
| R11 | 15K | 12K | 12K | 12K | 12K | 10K | 12K |
| R12 | 100R | 390R | 390R | 390R | 150R | 150R | 100R |
| R13 | 8K2 | 10K | 10K | 10K | 8K2 | 10K | 8K2 |
| R14 | 100R | 390R | 390R | 390R | 820R | 150R | 100R |
| R15 | 470K | 470K | 470K | 470K | 390K | 470K | 470K |
| R16 | 100K | 100K | 100K | 100K | 82K | 100K | 100K |
| R17 | 15K | 12K | 12K | 12K | 22K | 15K | 12K |
| R18* | 100K | 22K | 22K | 22K | 39K | 22K | 33K |
| R19* | 39K | 20K | 22K | 20K | 39K | 39K | 33K |
| R21 | 100K | 100K | 100K | 100K | 100K | 100K | 100K |
| R22 | 390K | 470K | 470K | 470K | 380K | 430K | 470K |
| R23 | 2K2 | 2K | 2K7 | 2K7 | 2K7 | 3K3 | 2K7 |
| R24 | 10K | 10K | 10K | 10K | 12K | 15K | 12K |
| R26 | 1M5 | 1M5 | 1M5 | 1M5 | 1M5 | 1M5 | 1M |
| RLED | 2K2 | 2K2 | 2K2 | 2K2 | 2K2 | 2K2 | 2K2 |
| C1 | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u | 10u elec | 0.1u |
| C2 | 470p | 470p | 470p | 560p | 560p | 560p | 470p |
| C3 | 1u | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u |
| C4 | 1u | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u |
| C5 | 470p | 470p | 470p | 560p | 560p | 560p | 470p |
| C6 | 0.1u | 47n | 47n | 47n | 47n | 0.1u | 0.1u |
| C7 | 1u | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u |
| C8 | 470p | 470p | 470p | 560p | 560p | 560p | 470p |
| C9 | 0.1u | 47n | 47n | 47n | 47n | 1u elec | 0.1u |
| C10* | 3n9 | 3n9 | 3n9 | 3n9 | 3n9 | 3n9 | 3n9 |
| C11 | 0.01u | 0.01u | 0.01u | 0.01u | 0.01u | 0.01u | 0.01u |
| C12 | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u |
| C13 | 0.1u | 0.1u | 0.1u | 0.1u | 0.1u | 1u elec | 0.1u |
| C14 | 100u | 100u | 100u | 100u | 100u | 100u | 100u |

R6 100kA (Log) **(SUSTAIN)**
R20 100kB (Lin) **(TONE)**
R25 100kA (Log) **(VOLUME)**
Q1-4 2N5088
D1-4 1N4148

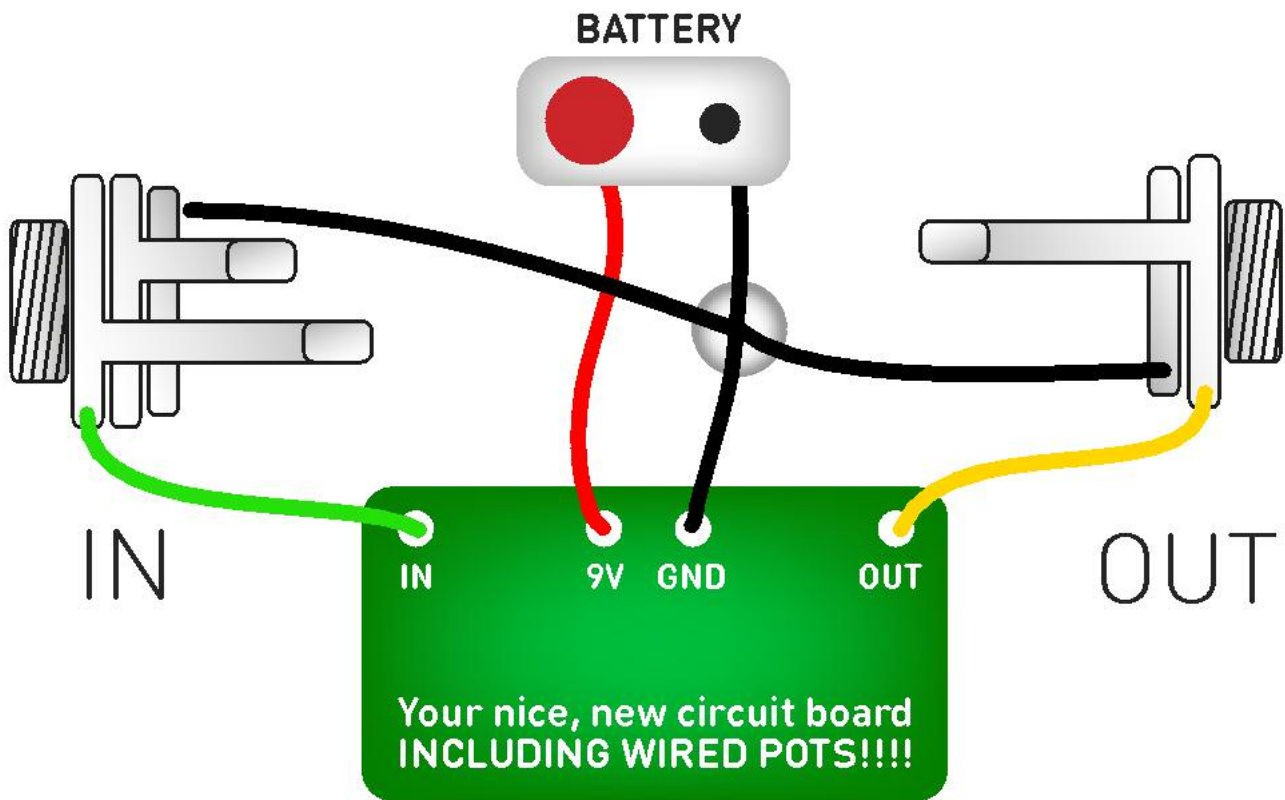
*BMP has a scooped mid-range tone. For flattened mid-range tone section change R18,19 to 39k and C10 to 0.01u

For a Muff more suited for bass try the following: Green Russian, Black Russian or Civil War as a starting point.

C1, 3, 4, 7 & 13 - increase to between 220n - 470n
 Replace D1 with a jumper wire. Omit D2 altogether.

Go for the flattened mid-range tone option.

Test the board!



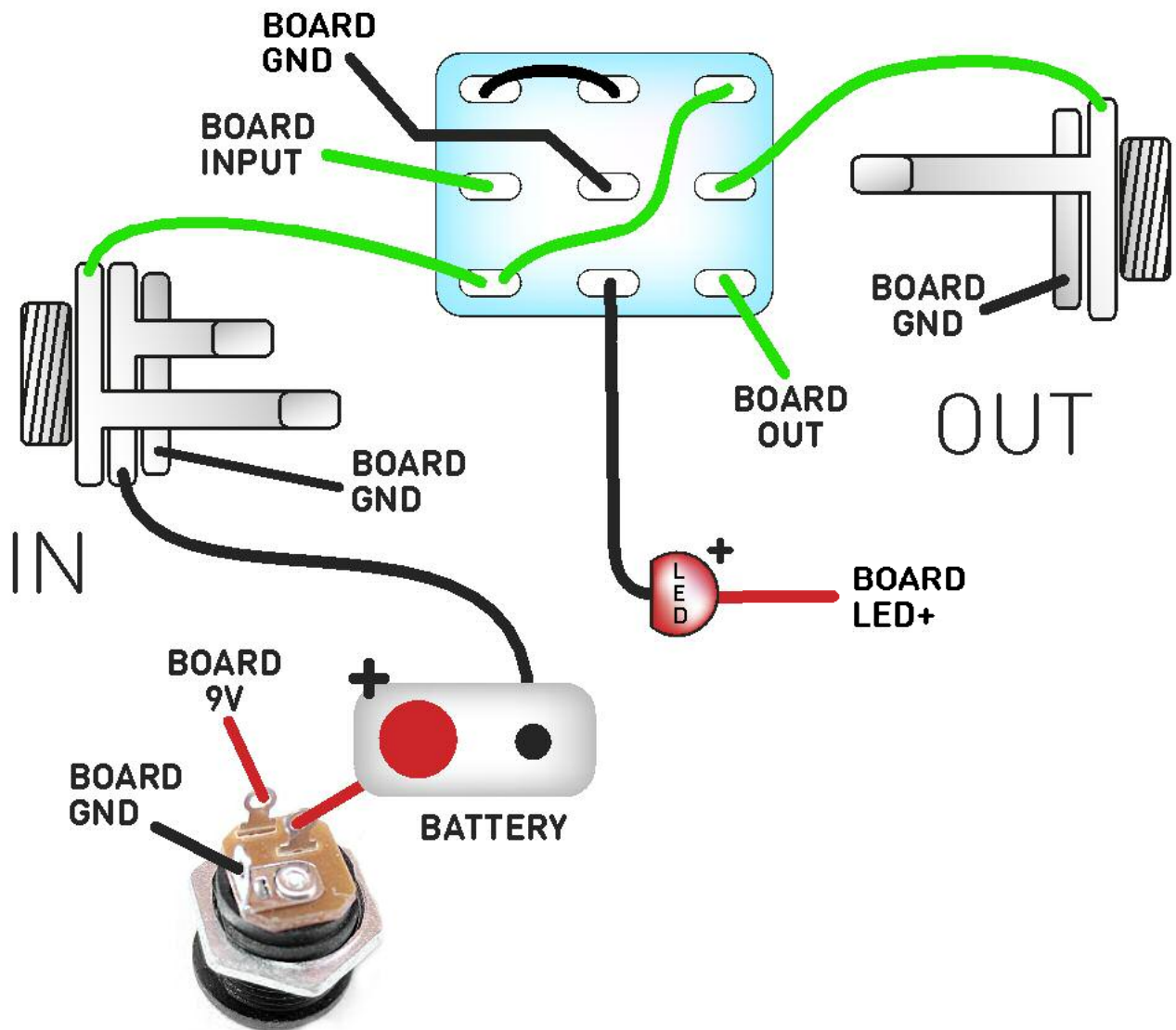
UNDER NO CIRCUMSTANCES will troubleshooting help be offered if you have skipped this stage. No exceptions.

Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

If it works, crack on and do your switch wiring. If not... aw man. At least you know the problem is with the circuit. Find out why, get it working, THEN worry about the switch etc.

Wire it up



Wiring shown above will disconnect the battery when you remove the jack plug from the input, and also when a DC plug is inserted.

The Board GND connections don't all have to directly attach to the board. You can run a couple of wires from the DC connector, one to the board, another to the IN jack, then daisy chain that over to the OUT jack.

It doesn't matter how they all connect, as long as they do.

This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal. Now... GO GET FUZZY!

PedalParts.co.uk