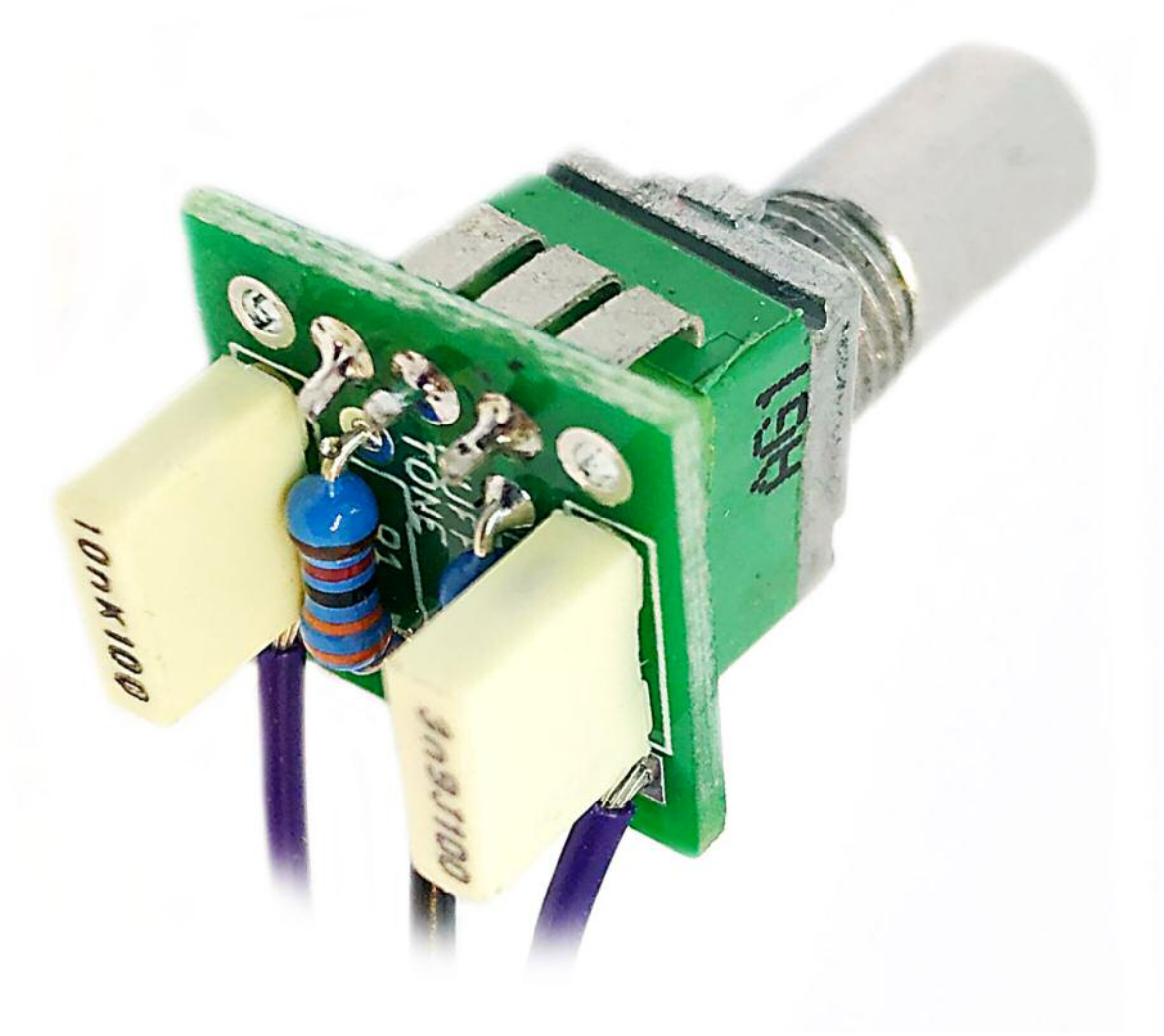


Tiny BMP Tone

Big Muff tone stack in a miniature format

Important notes

If you're using any of our footswitch daughterboards, DOWNLOAD THE DAUGHTERBOARD DOCUMENT

- Download and read the appropriate build document for the daughterboard as well as this one BEFORE you start.
- DO NOT solder the supplied Current Limiting Resistor (CLR) to the main circuit board even if there is a place for it. This should be soldered to the footswitch daughterboard.

POWER SUPPLY

Unless otherwise stated in this document this circuit is designed to be powered with 9V DC.

COMPONENT SPECS

Unless otherwise stated in this document:

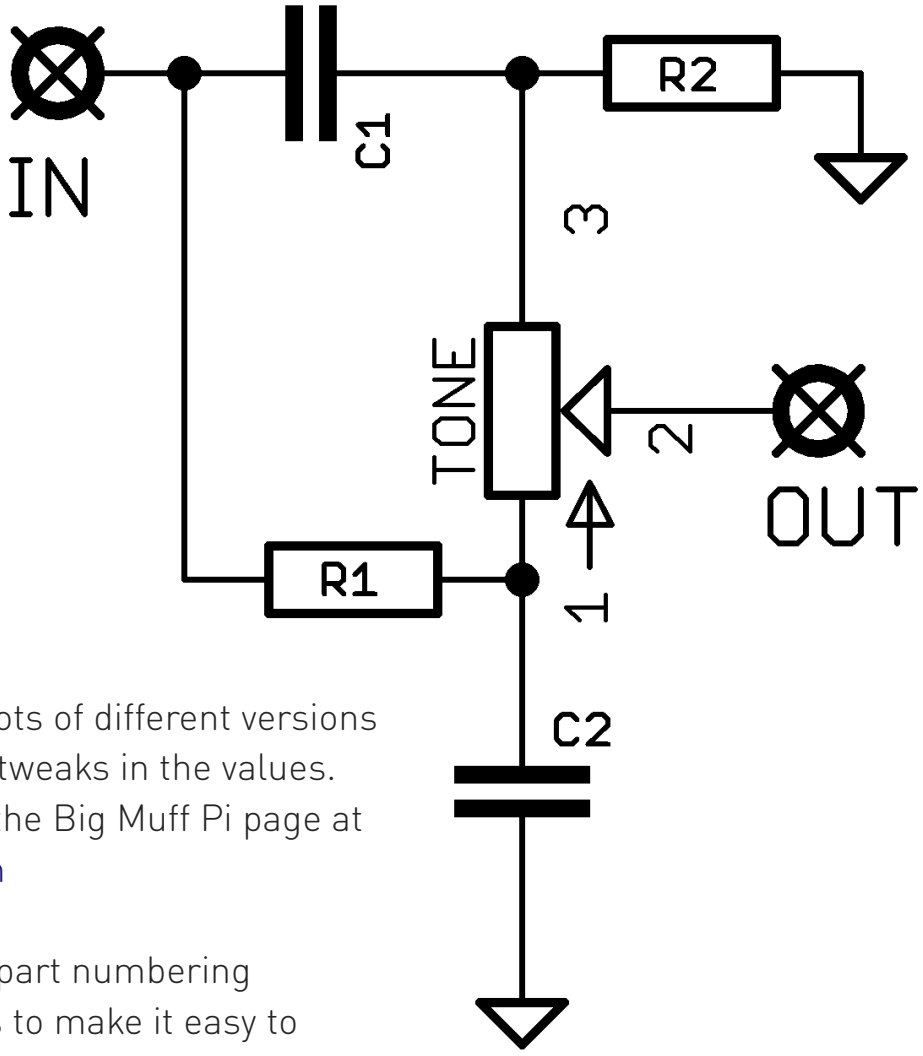
- Resistors should be 0.25W. You can use those with higher ratings but check the physical size of them.
- Electrolytics caps should be at least 25V for 9V circuits, 35V for 18V circuits. Again, check physical size if using higher ratings.

LAYOUT CONVENTIONS

Unless otherwise stated in this document, the following are used:

- **Electrolytic capacitors:**
  Long leg (anode) to square pad.
- **Diodes/LEDs:**
  Striped leg (cathode) to square pad. Short leg to square pad for LEDs.
- **ICs:**
  Square pad indicates pin 1.

Schematic + BOMs



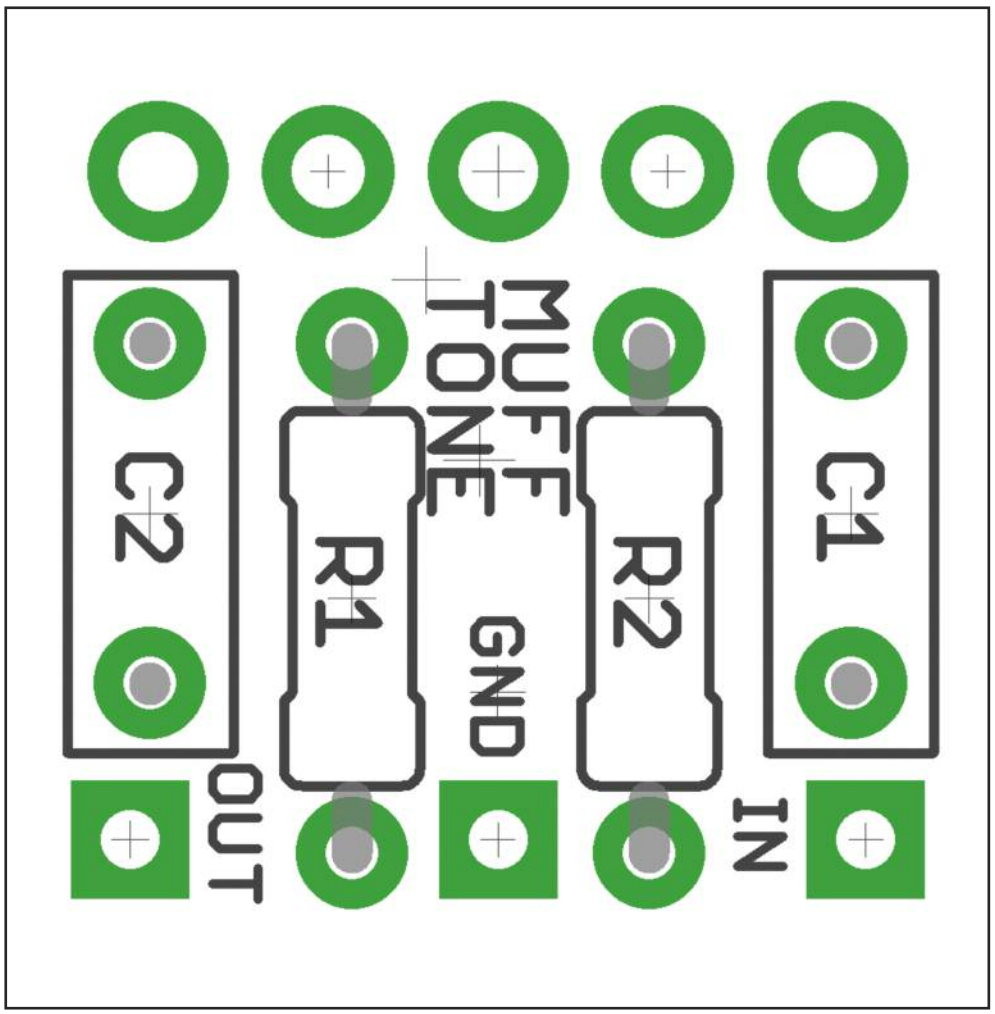
There are lots of different versions with small tweaks in the values. Check out the Big Muff Pi page at KitRae.com

Here's the part numbering equivalents to make it easy to transpose the values from the schematics on that site:

R1	R8
R2	R5
C1	C9
C2	C8

TONE is always 100KB

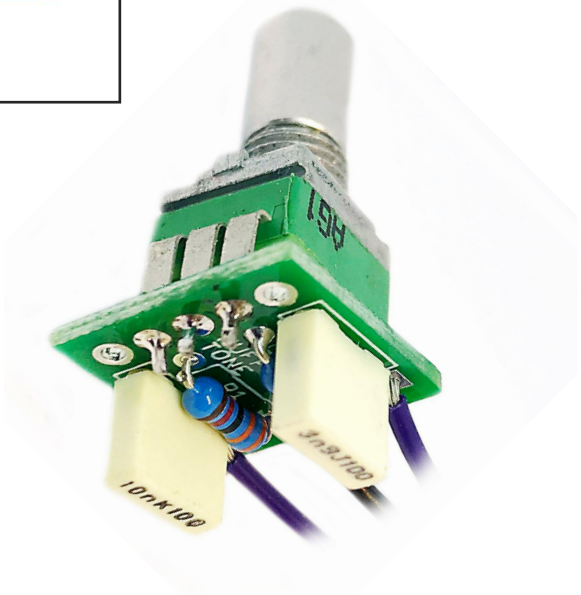
Triangle / Ram's Head		Civil War	
R1	33K	R1	20K
R2	33K	R2	22K
C1	3n9	C1	3n9
C2	10n	C2	10n

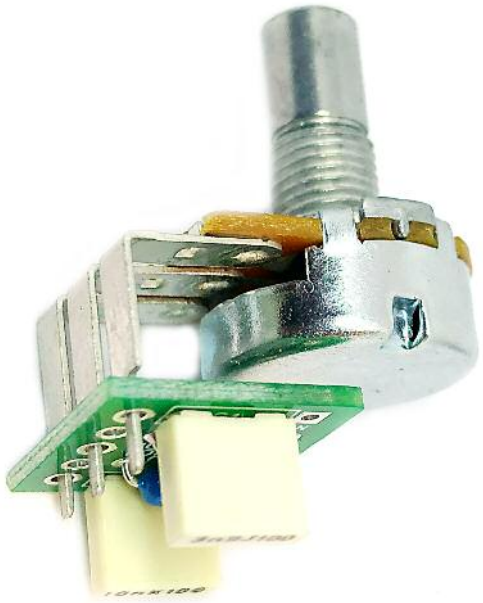


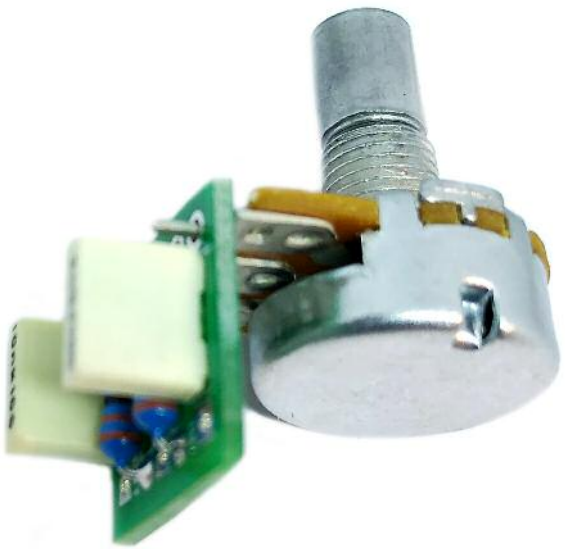
There are two sets of pads for the pot to enable the use of 16mm or 9mm in either horizontal or vertical pin format.

There's not much else to explain...

Three off-board connections for IN, OUT and circuit ground. See next page for how to wire those up.



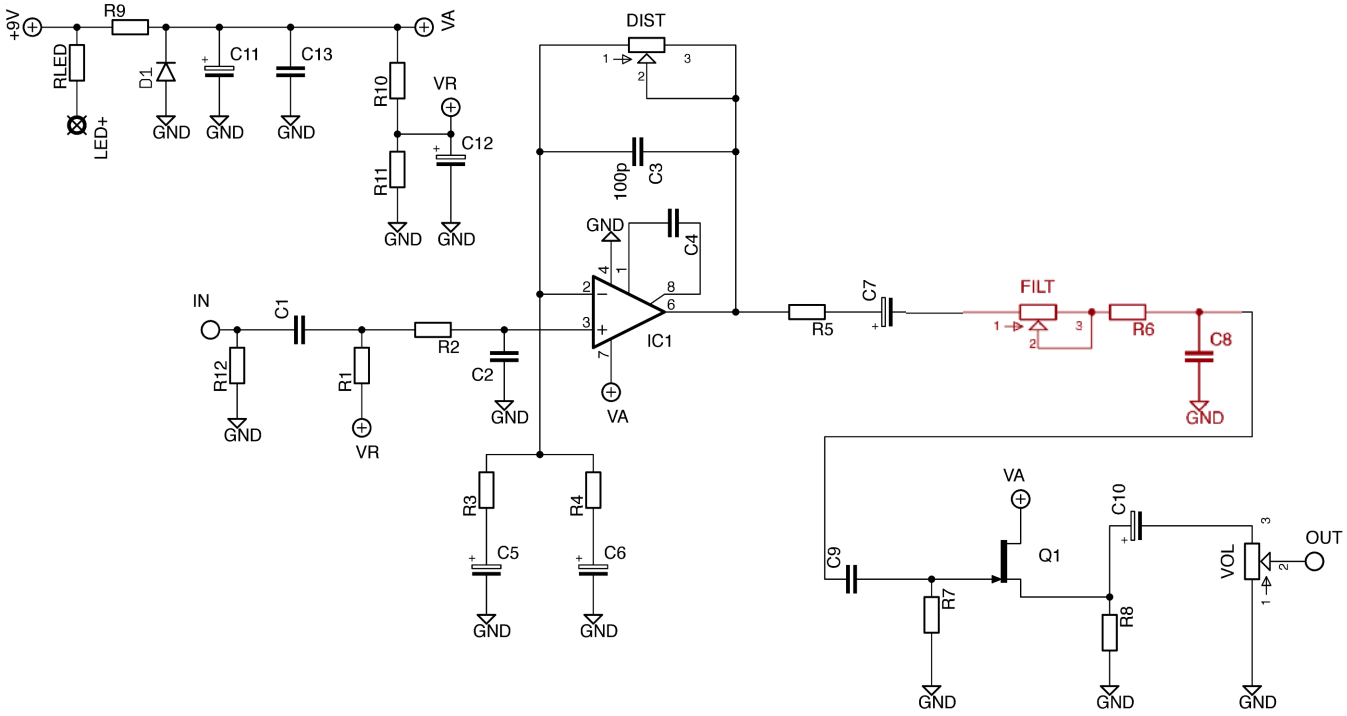




Usage

Well, it's really up to you where you place this in the main circuit. Take into consideration the volume drop you'll get from using this. It's a good idea to insert it somewhere with a recovery stage afterwards.

For example, let's take a standard Rat circuit and replace the filter section, shown in red below.



There are a couple of ways to do this. Both involve leaving out C8.

The first would be to jumper pins 1-2 of the Filter pot and use the two pads of R6 to connect IN and OUT.

The second would be to jumper R6 and connect IN to Filter pin 1, OUT to Filter pin 2 or 3.

Your ground connection can go to the unused ground pad of C8, or any other convenient ground point.

The volume drop caused by the BMP Tone Stack is compensated for by the recovery stage centred around Q1, which is there to compensate for the original Filter volume drop in the first place.

Simple! Now go have fun.