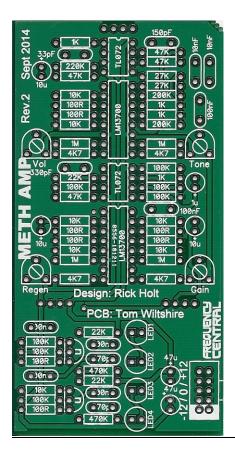
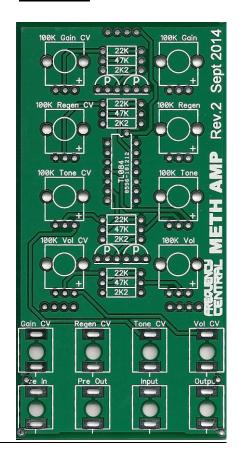
# FREQUENCY CENTRAL Build documentation for: METH AMP REV.2

Meth Amp is based around the fuzz core of the EH Big Muff pedal. The clipping diodes have been replaced by red LEDs to take account of the change in power supply from 9V in the original Big Muff to +/-12V in Meth Amp. To the fuzz core has been added a bunch of OTAs, each controlling a different aspect of audio processing: gain, regen (a new feature – not present in Big Muff), tone and volume. Thereby, each feature is fully voltage controllable. Additionally, there is a separate x100 preamp which can be used to boost external audio for further processing by Meth Amp.

## Main PCB:



## Panel PCB:

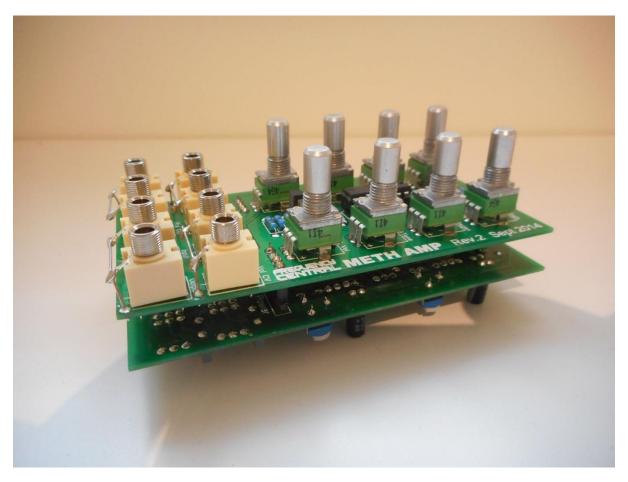


Please observe correct polarity of the electrolytic caps (indicated by +), transistors, ICs (pin 1 indicated by square pad), LEDs (cathode indicated by flat edge) etc!

'n' = npn transistor BC547
'p' = pnp transistor BC557

# **Bill of Materials**

100R x 8	33pF x 1	LM13700 x 2	<u>B100K x 8</u>
1K x 4	150pF x 1	TL072 x 2	All pots are 9mm Alpha
2K2 x 4	330pF x 1	TL084 x 1	
4K7 x 4	470pF x 2	BC547 x 2	<u>100K trimmer x 4</u>
10K x 7	10nF x 2	BC557 x 4	All trimmers are 6mm
22K x 7	100nF x 6	<u>3mm red LED x 4</u>	(Tayda)
27K x 2	1uF electrolytic x 1		Power header
47K x 8	10uF electrolytic x 3		Male header strip
100K x 7	47uF electrolytic x 2		Female header strip
200K x 2			Kobiconn sockets x 8
220K x 1			KODICOTTI SOCKELS X O
470K x 2			
1M x 4			



## Main PCB:

Populate the Main PCB as shown on the silkscreen, starting with the lowest profile components, so:

- Resistors
- IC sockets
- Non-electrolytic capacitors, transistors, trimmers
- Power header
- Electrolytic capacitors

Finally, cut 3 male header strips to the correct lengths (4, 4, 4) and solder to the PCB so that the long legs stick out of the rear of the PCB.

### Panel PCB:

Populate the Panel PCB as shown on the silkscreen in this order:

- Resistors
- IC socket
- Transistor
- Potentiometers (bend back the mounting lugs, then solder the middle lug in place. Reflow and adjust as necessary so that they all lie correctly. Solder lugs 1, 3 and the mounting lugs)

Cut 3 female header strips to the correct lengths (4, 4, 4) and solder to the PCB so that the black parts stick out of the rear of the PCB.

Now, place the 8 sockets onto the PCB with their ground lugs pointing towards the bottom of the PCB. **Don't solder them in place yet!** Assemble the panel to the panel PCB, put on the pots washers and tighten up the nuts. Now set the sockets to the panel using the nuts, making sure they all sit right. Place the assembly face down and solder the sockets in place. This process should allow a small space to be created between the rear of the sockets' bodies and the PCB, allowing jacks to go in balls-deep (!). Everything should line up nicely now!

Take the whole thing apart, ie remove the nuts/washers and take the panel away from the panel PCB. Now solder solid core (cut off resistor legs) between the sockets' ground tabs and the adjacent ground pads on the PCB. There is one ground pad per two sockets.

Plug the Main PCB into the Panel PCB...you're done!

#### Tracking/calibration procedure

This is pretty straightforward, turn up all the CV inputs as well as the volume control, send an envelope into each respective CV input and adjust the associated trimmer until DC 'thunk' is minimised.

