Modding Jack Orman´s Mini Booster

This is the kind of pedal you always wanted and you will never turn off. It´s indeed the best full-range booster I know with an incredible good sound and it is running almost all of the time I´m playing, not always as a boost but to fatten up your tone in a very musical way. Take a Les Paul or similar guitar and play an overdriven solo with this thing on, your tone was never fatter before ! It´s not that hard to build and a very good beginners project. Further on the Mini Booster is a good place to do some fine mods. I spent a lot of time with this pedal and collected some mods that I would like to share with you. Some of them are coming directly from Jack Orman, some are my own ones. Feel free to experiment and enjoy the fat sound.

General things:

1. You can use several transistors (JFET´s) in this box, so it´s a good idea to use sockets for them. To my ears the 2N5457 is the most musical and the best sounding one, it´s the same you may know from the Orange Squeezer compressor. It has slightly less gain but a great sound. You can use the following trannies, sorted by gain and starting with the lowest gain: 2N5457 / J201 / MPF102 / BF245

2. C2 is a 3.3uF aluminium electrolytic cap (feedback capacitor on the upper JFET) which is labeled NON POLARIZED (= bipolar). This part can be hard to find but can be replaced with a regular 2.2uF electrolytic cap with the positive side to the junction between the two JFETS. It won't have any effect on the sound.

Tone shaping mods:

1. For C5 use a silver mica cap instead of ceramic

2. For C1 and C3 use film caps

3. If you want a less heavy sound, decrease C2 to 1uF or even 0.47uF

4. C1 can be degreased down to 0.01uF to make it a treble boost instead of a full range boost

Overall performance:

1. Replace C1 with a 10k resistor to improve RF rejection

Reduce Gain:

1. Take out C3 to reduce gain and to make the output more linear

2. To further reduce gain, increase R5 to a value between 1k and 10k

Adding more Gain:

1. Put in C3

2. Use a 10uF electrolytic cap for C6

3. Use NTE458 trannies for more gain

4. Use 2SK117 trannies for much more gain