

# How to optimize your green russian BigMuff's hardware and bypass

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This is a photo workshop about optimizing your green BigMuff's (aka „civil war Muff“) hardware components and adding 'true bypass' to the circuit, based on the manual from singlecoil.com ([http://www.singlecoil.com/docs/russian\\_muff.pdf](http://www.singlecoil.com/docs/russian_muff.pdf)).

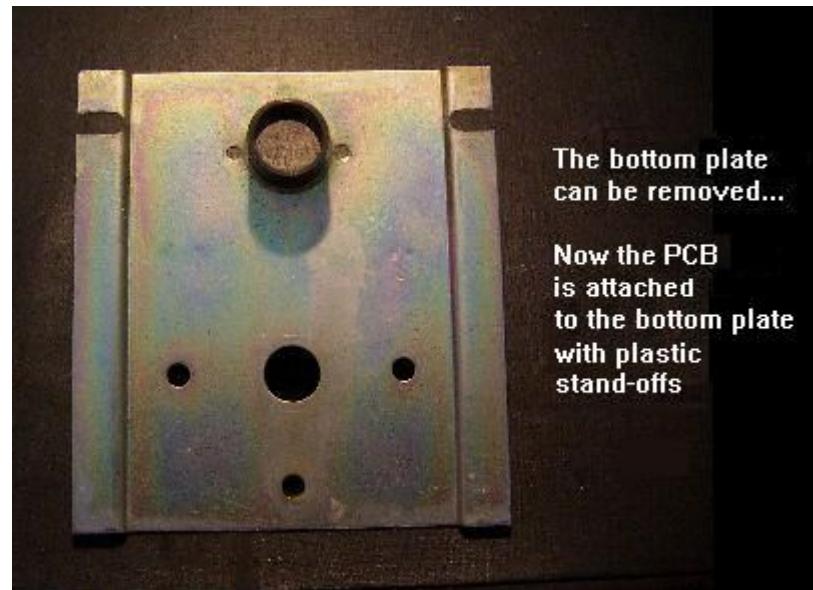
What we do in this workshop:

- replacing the standard switch with a 3PDT switch
- replacing the standard pots with Alpha pots
- replacing the standard jacks with Rean jacks
- installing a DC jack
- replacing the cheap battery clip with a quality clip
- replacing the complete wiring with silver wiring
- isolating the ground of the enclosure with foam rubber
- mounting the PCB to the bottom plate with plastic stand-offs
- installing a chromed LED bezel
- installing a bigger, fancy colored LED

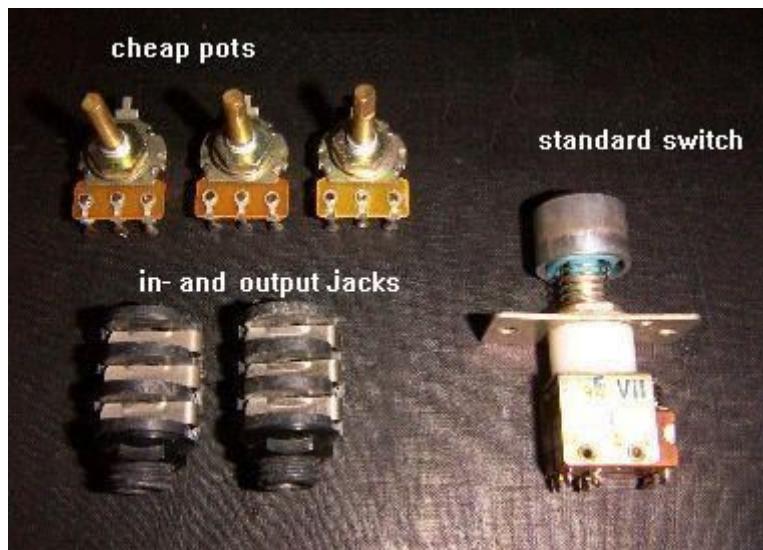
To install the new switch for true bypass, you need two big washers as you can see on the following image:



**The bottom plate holding the switch, pots, LED and the PCB can be removed and is no longer necessary after reinstalling the new parts.**



**This is the old hardware that will be swapped:**



**This is the cheap battery clip and wiring which will be replaced too:**



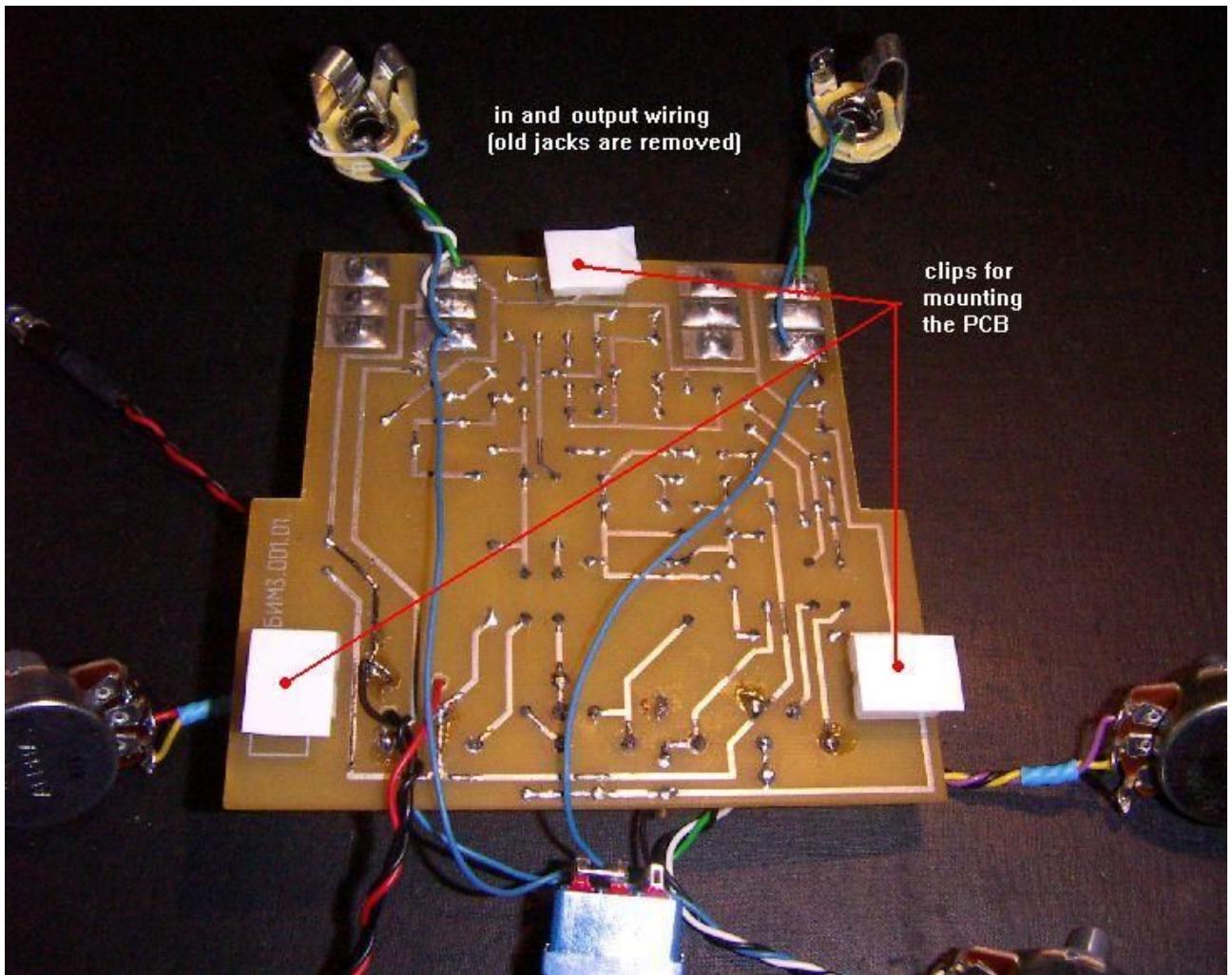
**This is the small red standard LED and its plastic holder which will be replaced too:**



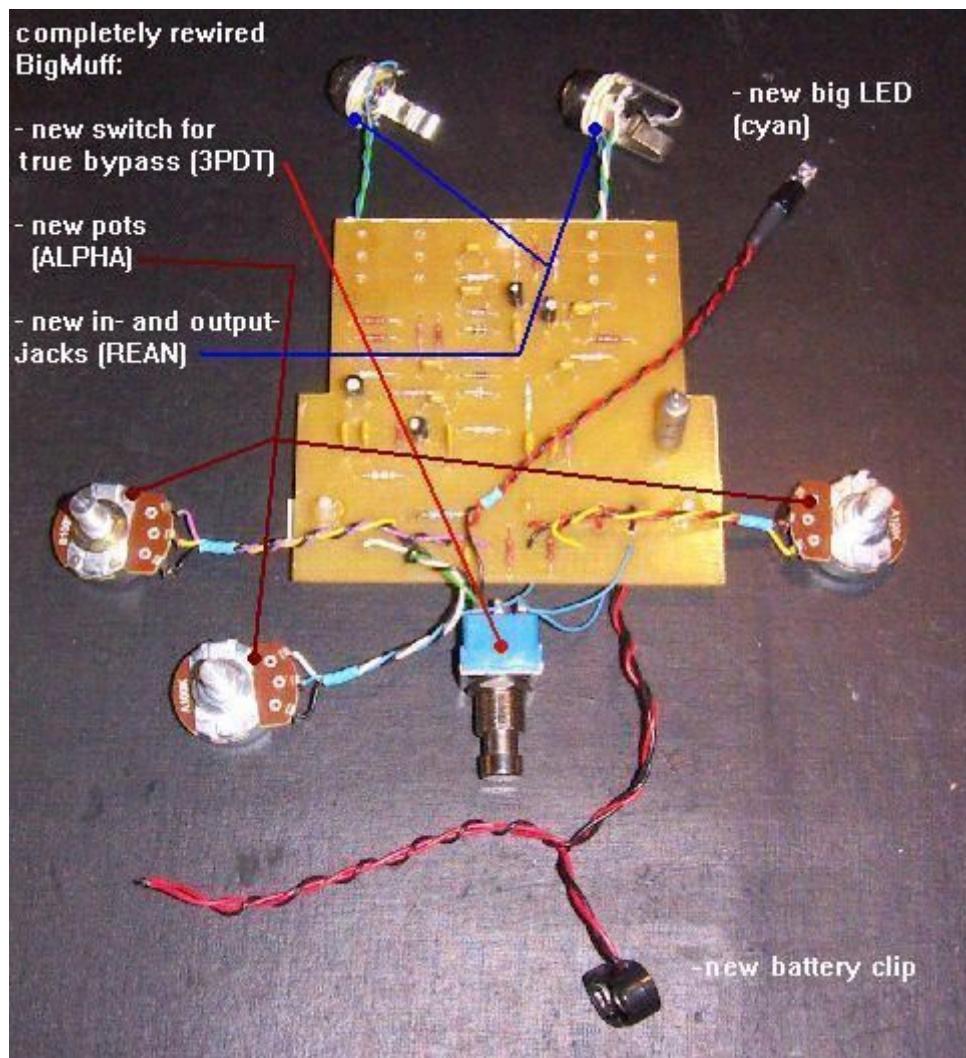
## The new pots from the „Alpha“ company:



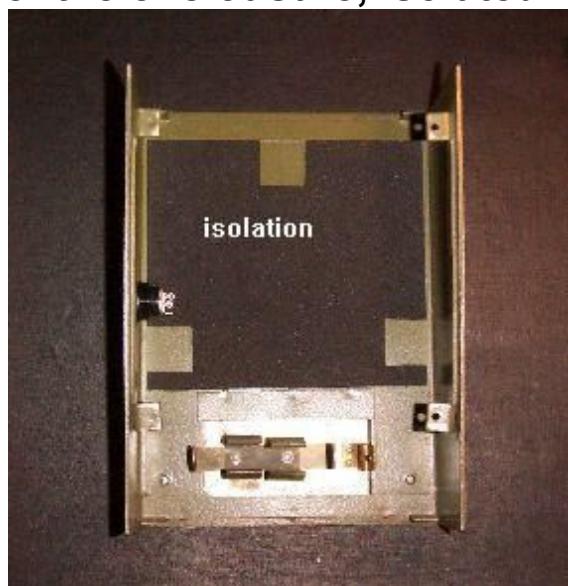
## The new in- and output jacks and the PCB plastic stand-offs:



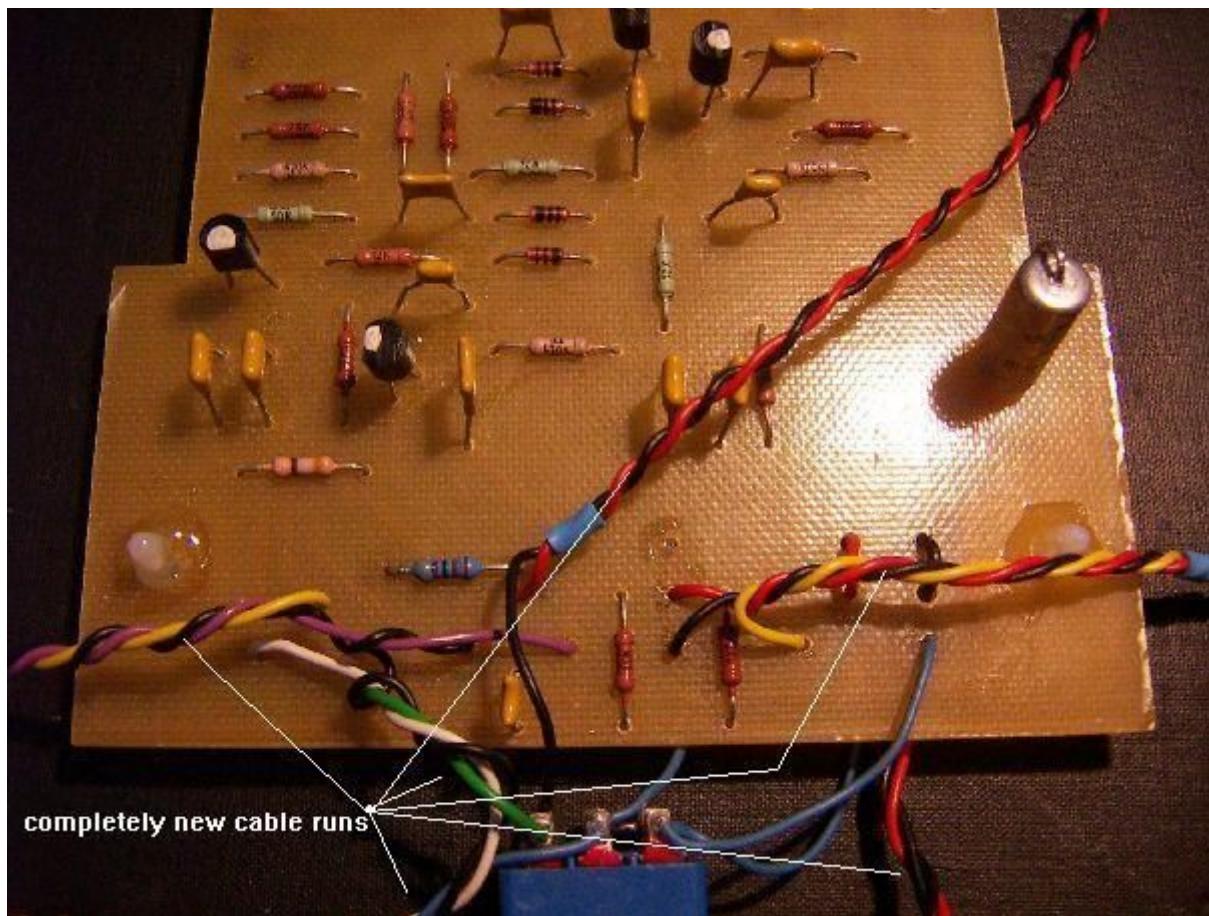
**After finishing the rewiring job everything is done:**



**The bottom plate of the enclosure, isolated with foam rubber:**



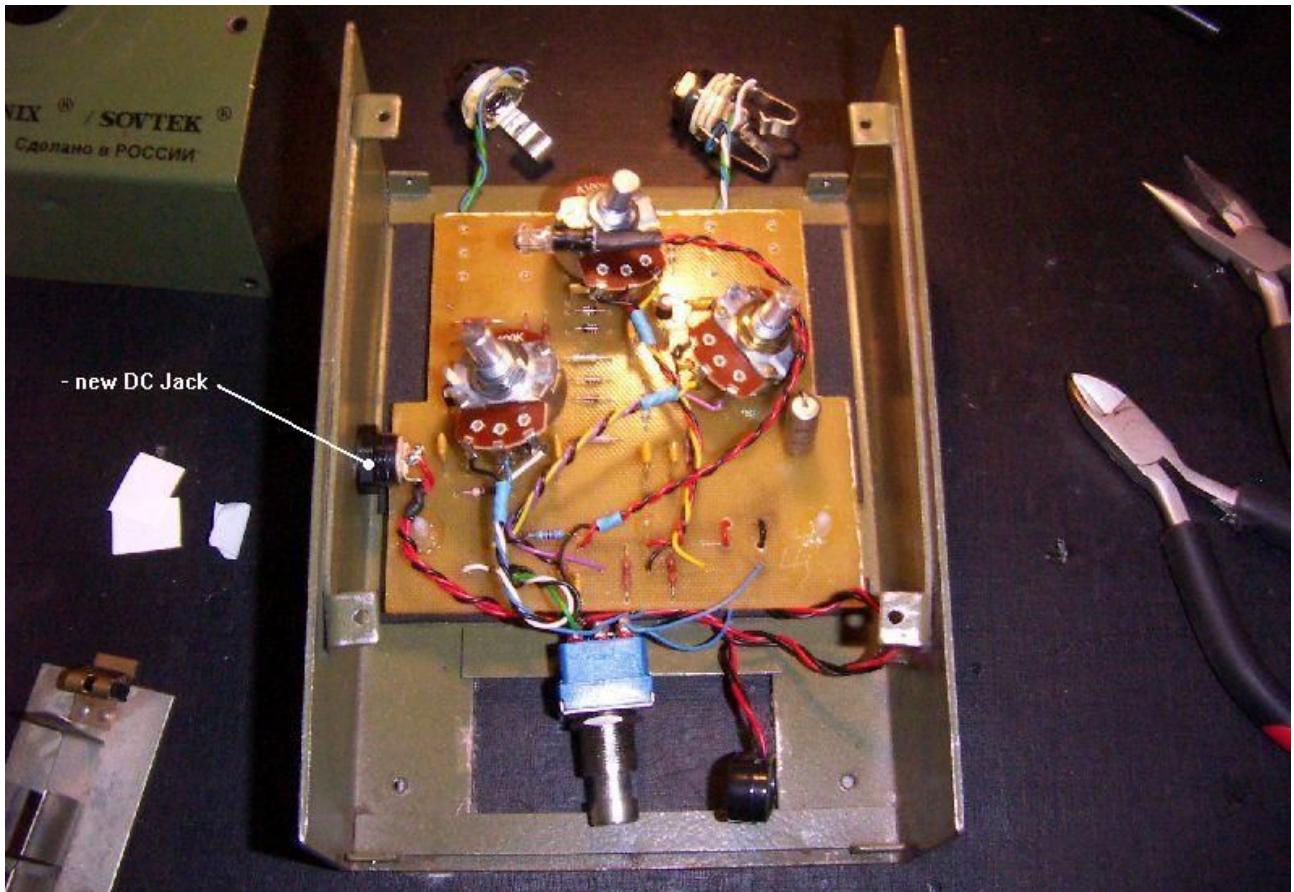
**A detailed view at the PCB:**



**Please take care of the length of your wires before soldering,  
they could be shorten easily, but extending is more difficult ;-)**

**After you have installed all the hardware  
you will have the correct placement of the in- and output jacks  
a la Boss, Ibanez ect. (output = left / input= right)**

**Now the PCB is attached to the bottom plate with plastic stand-offs and I mounted the DC jack on the left side of the enclosure:**



**Mounting the pots and the switch is a little bit tricky but you only have to do it once ;-)**

