

## MGV (Marshall™ Guv'nor™ Replica) Instructions

Version 2013 November 06

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This is a replica of the **Marshall™ Guv'nor™ Distortion** referred to as **MGV** in these documents.

Use the project documents provided, starting with the General Build Instructions. Follow the layout diagrams to add components to the PCB and the wiring diagrams to hook it all up.

D3, D4, D5 and D6 are optional diode clippers, the kit supplies these in 1N914 diodes, but others could be used. They can be configured with two diode clippers, three diode clippers for asymmetric clipping (as the photo below shows) or as a pair of 2 two diodes in series for smooth distortion (same clipper setup as the BluesBreaker). The wiring diagram shows a toggle switch to switch from the LED clippers to these optional clippers. Note that if you do not use D4 or D6 diodes, D3 or D5 can be inserted across both diode placements and no jumper is needed, as shown with D5 in the photo below (the last photo in this document).

R14 should be a 1k resistor. This is different from the original schematic with a 4k7 resistor for the LED current limiting resistor. The 1k resistor works better for the LED that we supply with the kit. Since the kit is a tight fit in a 125B enclosure, the following are some tips for putting the smaller one together.

1. Build up the PCB with all the parts and also the wires in the off-board wiring pads.

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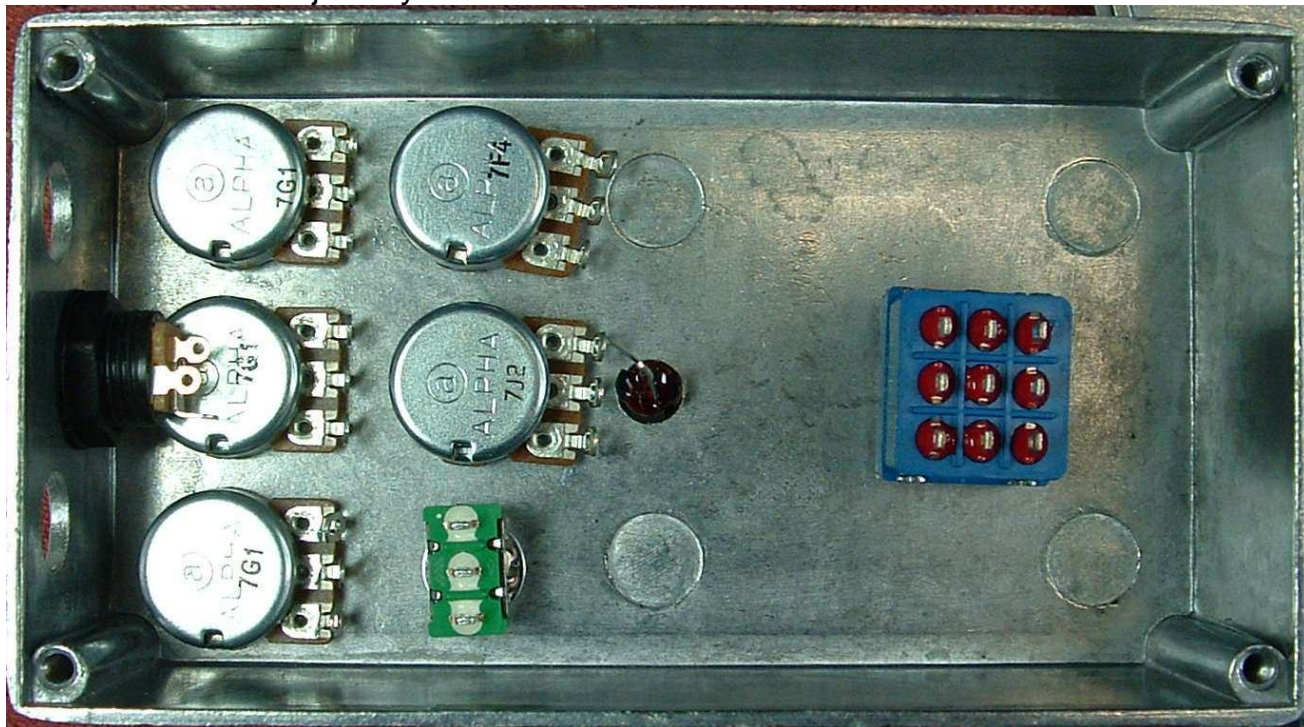
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2. In the enclosure, start by installing the pots, switches, LED and DC jack, but not the in/out jacks yet.



3. Plug the plastic standoffs into the PCB, expose the sticky bases and set the PCB in place, then remove the PCB, this sets the standoffs in place. It's easier to do this before you start adding wires inside the enclosure, although you can see from the photo that we started wiring before we did this.
4. Install all the wiring between the parts in the enclosure. Jumper the two lugs on the foot switch.

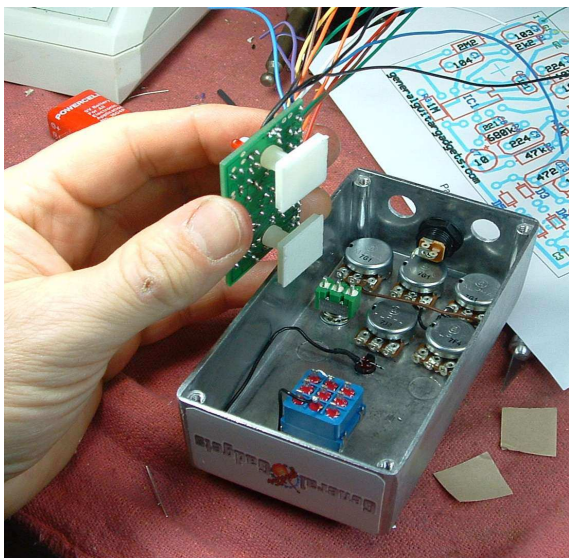
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5. Run a wire from the short leg of the LED to the switch
6. Run wires between the pots as shown in the photo and the “Stage 1” wiring



diagram.

7. The PCB sits over the LED and the lugs of the second row of pots, so we should wire these first before we set the PCB in place.

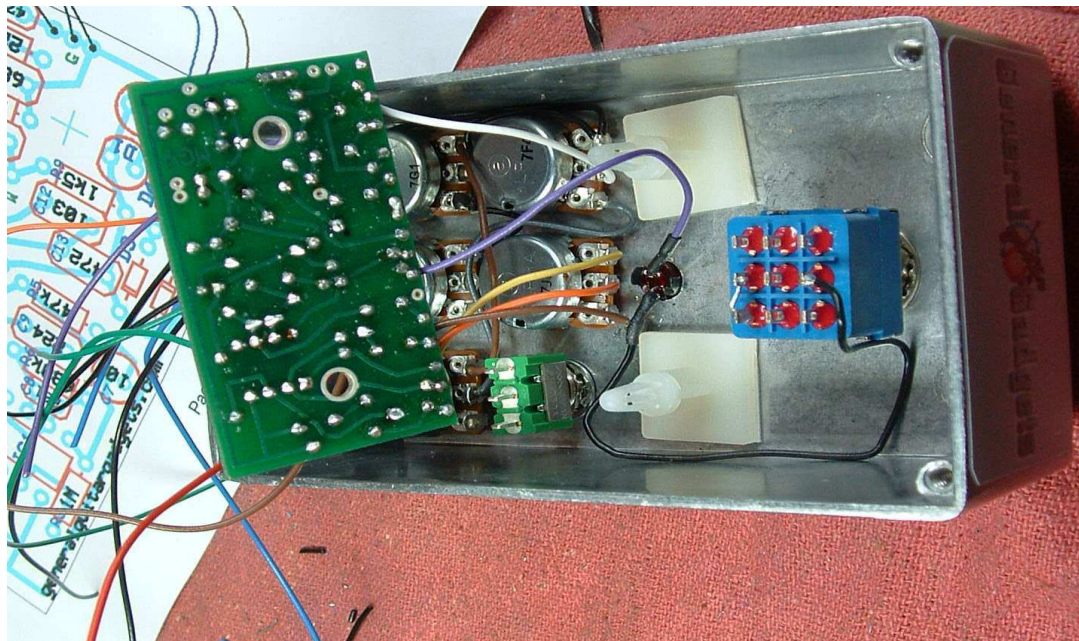
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8. Next set the PCB back on the standoffs and do all the rest of the wiring except the toggle switch. Lift the PCB back up to run the wires under the PCB for the toggle switch wiring.
9. Set the PCB back in place, install the in/out jacks and wire them them in. Solder in the battery snap and you're done. A photo of the completed insides is shown below.

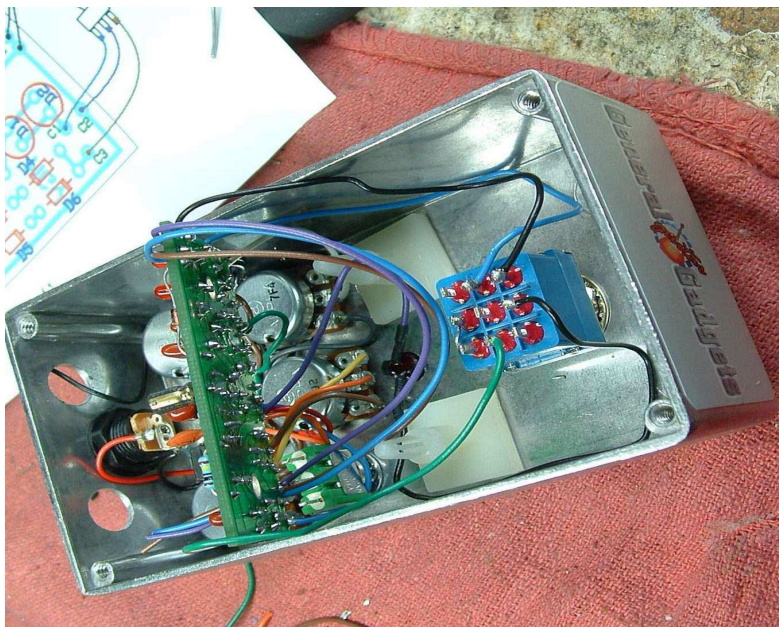
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Comments and questions are welcome and can be sent to [info@generalguitargadgets.com](mailto:info@generalguitargadgets.com)

Here is a chart of voltages taken at the IC pins. This information can be used to help you find and fix problems if your **MGV** doesn't work when you test it. These are approximate voltages, if yours are within 0.5 volt variance, you are probably okay, however, pin 4 should be zero volts and pin 8 should be same voltage as the 9v+

Component	Location	Voltage
9 volt power supply		9v
IC1	Pin 1	4.5v
	Pin 2	4.5v
	Pin 3	4.2v
	Pin 4	0v
	Pin 5	4.5v
	Pin 6	4.5v
	Pin 7	4.5v

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	Pin 8	9v
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Here's a view of the inside of the completed Marshall™ Guv'nor™ replica in the smaller enclosure.

