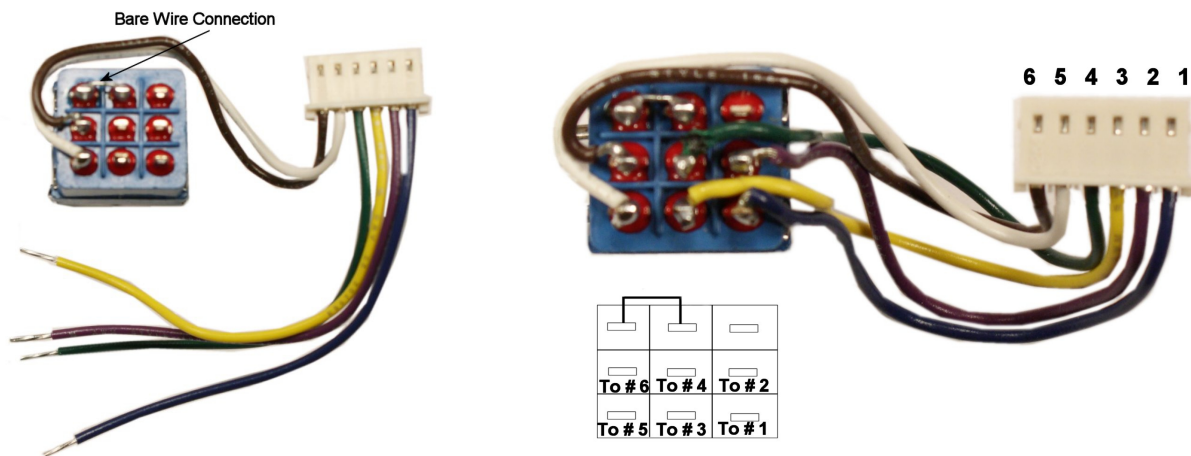


The last piece of pre-assembly before you put everything together is creating the connector for the stomp switch and soldering those components together.

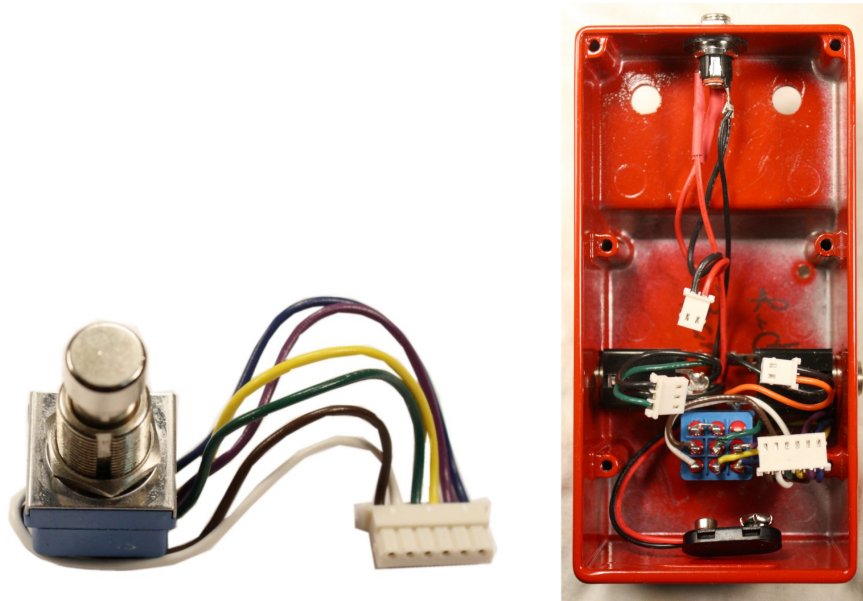
Find the six-position Molex connector and the terminated leads for it. While there is no standard for which color goes in which position, you may want to follow what I did in the pic below for ease of troubleshooting. Insert a lead in each position of the connector. Each terminal has a tiny flange to hold it in place, and you will feel it “click” when the terminal is fully inserted.



Position the stomp switch with its terminals parallel to you as shown in the left-hand pic. Start the wiring by connecting the two terminals at the top left with a very short piece of bare wire, and then solder. When making the solder terminations to the connector, take care to route and dress the leads as shown; it's important to being able to position them in the case later. The right-hand pic is annotated to show which termination goes to which contact.

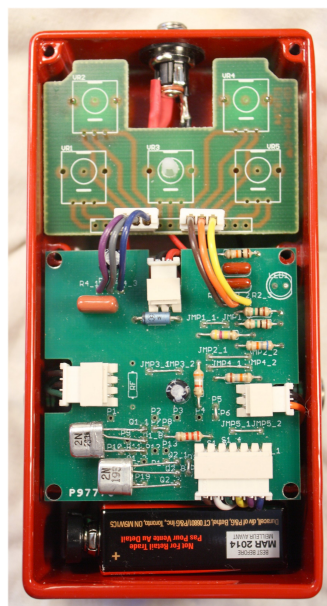


These stomp switches come with two nuts, one of which is used to set the height of the switch off the floor of the enclosure. Screw this nut down as far as it will go and install the switch in the enclosure. Top hardware goes on finger-tight for now.



You can now temporarily install the boards and prepare for initial testing. To seat the potentiometer board, you will need to move apart the red and black leads to the power jack. Then insert between them the base of the plastic standoff. Don't remove the adhesive backing till we are sure that everything works!

Maneuver the leads of the connectors into their slots in the PC board, and lower the PC board into place. Plug in all of the connectors. The Molex connectors are keyed so that the plugs can only go in one way. Take care to make sure that the LED goes straight into its hole so that its leads are not distorted.

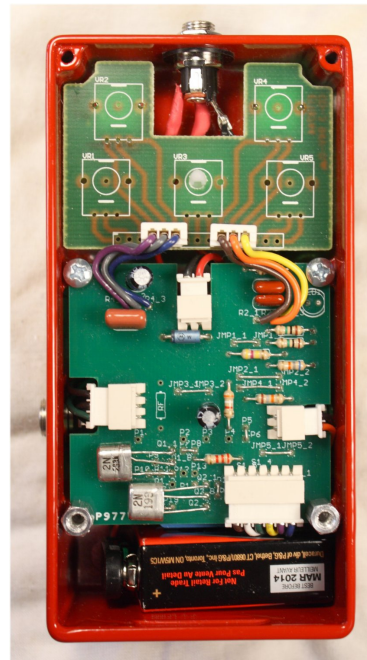
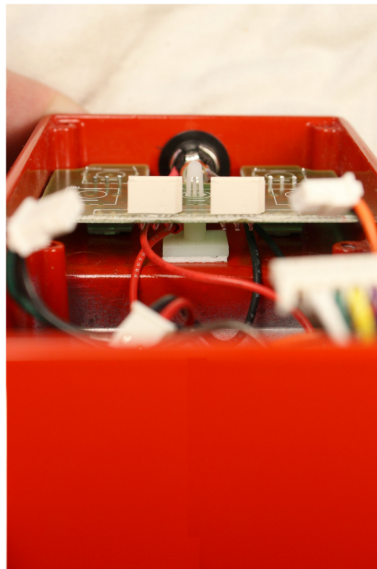


Plug in your gear and connect a battery. Does the in-use LED light up? Click the stomp switch if not. If the LED does not light, you have at least one problem. **Stop** here and go to the section on troubleshooting. If the LED lights, see if the controls work. The tone should be Rangemaster-ish trebly at the counter-clockwise side and more full-spectrum at full clockwise. Level should give you good control of volume. If they work...

## CONGRATULATIONS!

You can now nail down all of the hardware. Start by disconnecting, gently, all four plugs from the main board and lift the board out. Lift up the potentiometer board, but don't take it out of the case. Remove the backing paper from the bottom of the standoff, taking care not to let the adhesive base make contact with the floor yet. Ease the shafts of the potentiometers back into their holes, and press the standoff down when the shafts are in place. Screw on the pot hardware finger-tight.

Re-install the main PC board, connect the plugs and secure the board with at least one screw. Test the pedal again and make sure that you still have the effect. This is to make sure that you have not broken any connections while doing the necessary bending and flexing that are part of assembly. If all is working, screw the board down and dress the leads to the potentiometer connections as shown.



Last steps: Cover screwed down, a little foam padding in the battery compartment to keep the battery from rattling. Battery door on, attach rubber feet, secure pot hardware and add knobs.



## **When It Doesn't Work...**

First take a cold shower, then make sure that you get fed. I'm serious; troubleshooting requires a clear head and normal metabolism

The first thing most people presume is that a component must be bad or there's a flaw in the design. So, first, I'll reassure you: I built from these instructions, and my pedal worked right off the rip. Also, component failures are possible, but very, very rare. With a carefully-vetted design like this one, the problem is almost always a mistake in construction, and flawed soldering is the most common cause of trouble.

Begin by removing the whole assembly from the enclosure. If you did not set the adhesive of the standoff in place, this will be pretty easy: Just remove all hardware slowly and carefully and lift the works out.

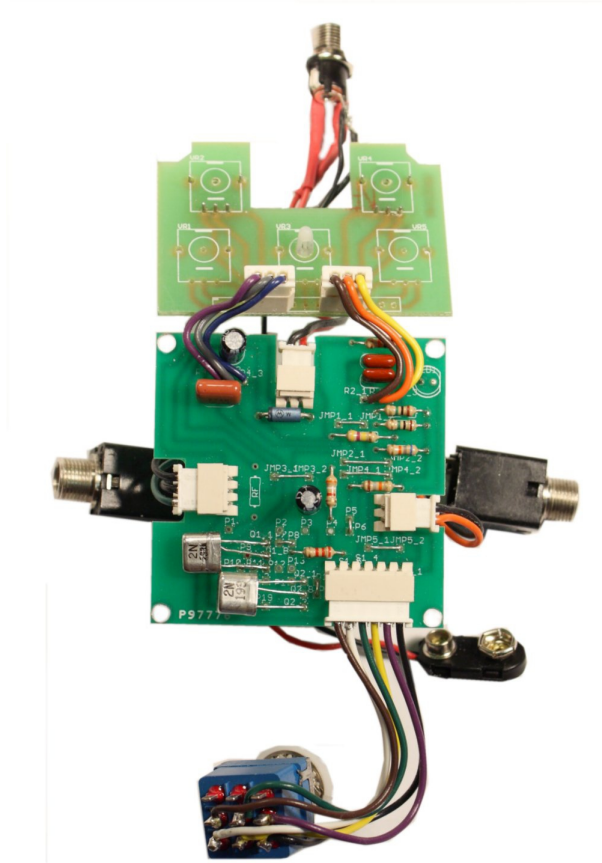
Now grab the parts list and do a close inspection:

- ◆ Is every resistor in the right position, and are the values correct?
- ◆ The electrolytic capacitors are polarized; are they oriented correctly?
- ◆ Is the power-protection diode oriented correctly?

Look at the wiring:

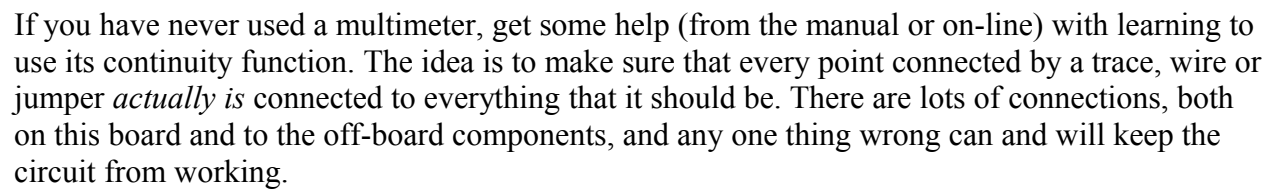
- ◆ Are the battery snap and the power connector soldered to the correct terminals of the power jack?
- ◆ Look carefully at the input and output jacks. Are the correct leads of the connectors soldered to the correct terminals on the jacks?
- ◆ Especially, check the connections to the stomp switch.

If *everything* is right so far and you still have no action, you'll need to have or borrow a multimeter to test continuity of connections on the board and to the off-board components. You may also have to learn to take voltage measurements, because these can be a dead giveaway of wrong or poor connections. Here are the “works” set up for troubleshooting. The main board is the one for the Oh My Darling, but the techniques are the same for all versions.



On the next page, you'll find an “X-Ray View” drawing of the board, showing all of the copper traces looking through from the top.





The schematic is below, and I have included typical voltage measurements. You will need to have a guitar plug in J1 and a battery connected, and you might want to ask for help if you have never done this kind of testing. The price of the kit includes reasonable e-mail help, so please contact me at [smallbearelec@ix.netcom.com](mailto:smallbearelec@ix.netcom.com) if you get completely stuck.

