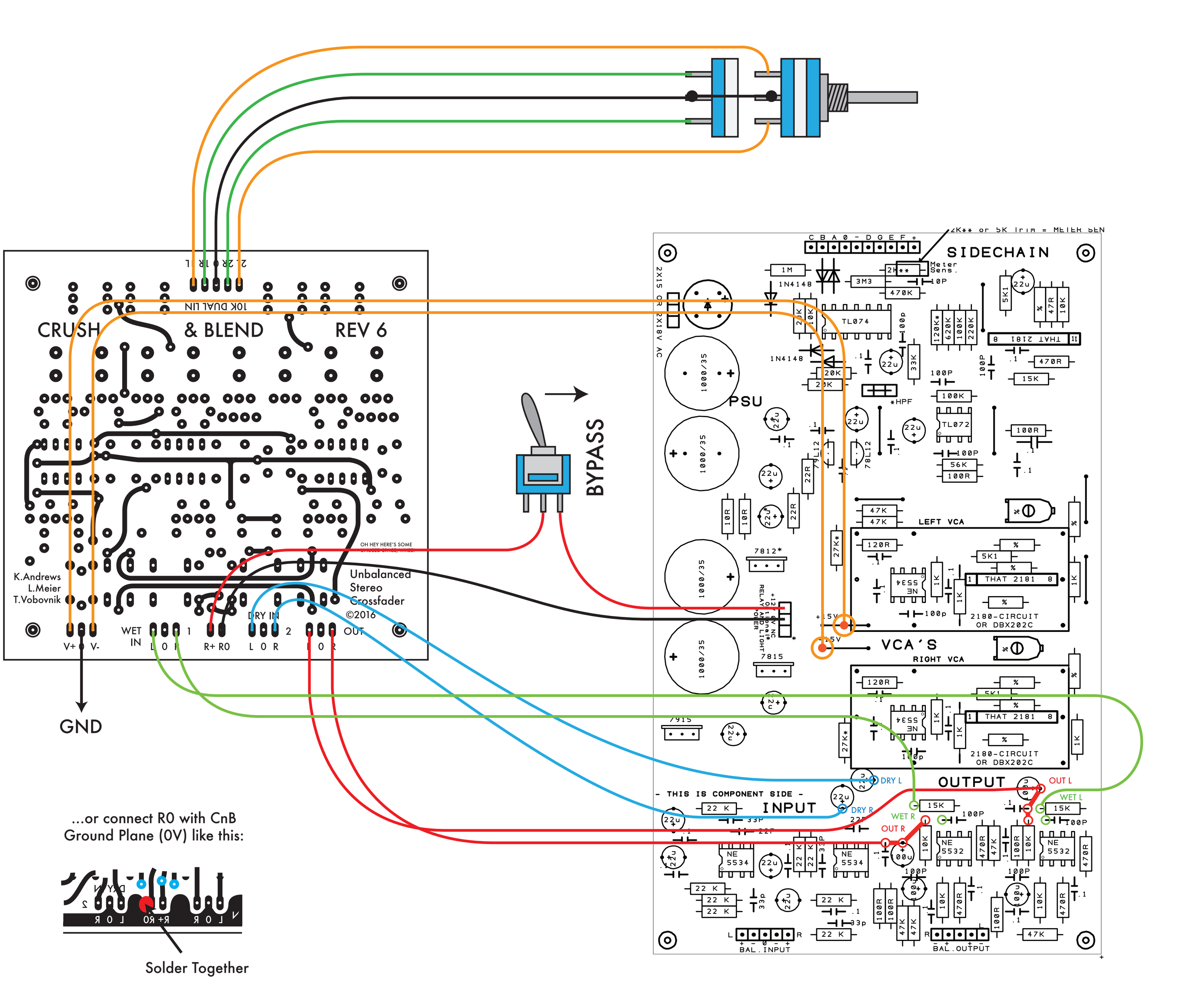
KRØSHBLÄNDAR



CRUSH-N-BLEND REV6

Wiring for the GSSL Compressor (Rev 11+)

Welcome to the Wiring Guide! I hope this works for you. If you have any questions, you can post them on the forum at

http://groupdiy.com/index.php?topic=61934 and let me know on diy@livingnote.com.

Wiring up the power supply:

V+ and V- are +/-15V for the opamps, which you can get from the +/-15V links on the GSSL PCB.

R+ is +12V for the relay bypass, which you can find on the pin header that is labeled "Relay and Light Power".

Relay and power grounds on the CnB PCB are isolated by default so that you can run separate grounds from the V+/0/V- pins and the R0 pin to the respective ground points.

If you don't have/want/need separate grounds, just solder the two grounds together on the solder side of the PCB at the R0 pin and use the 0V pin on the GSSL that the relay's R0 pin is plugged in to as a general ground for the whole unit.

This is right by the PSU capacitors and is thus one of the "ideal ground points" - it should work very well.

Signal wiring:

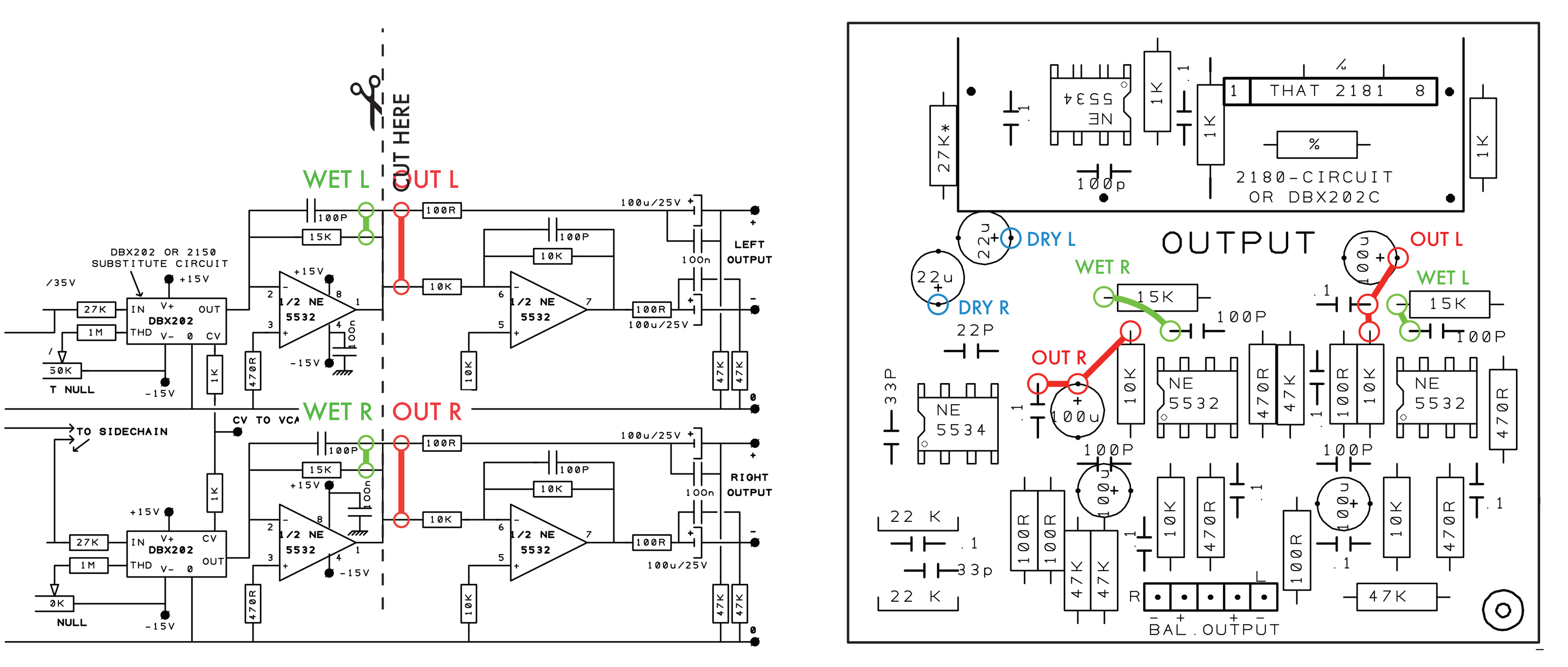
DRY Wiring

See the DRY L and DRY R positions indicated on the GSSL board below and in the picture above? Those are the points where the CnB gets its Dry input signal from the SSL board. We are soldering the wires that run from the CnB to the blue circled pins on the 22μF capacitors. You can do this either by drilling a small hole into the PCB where the traces connect to that pin and soldering them there, or soldering the wires directly to the appropriate places on the underside of the GSSL. You can also slightly lift the caps so that their legs become accessible from the top of the PCB and solder your wires to those.

Do not interrupt the signal on the GSSL board by cutting pcb traces or lifting components altogether for DRY wiring.

WET Wiring

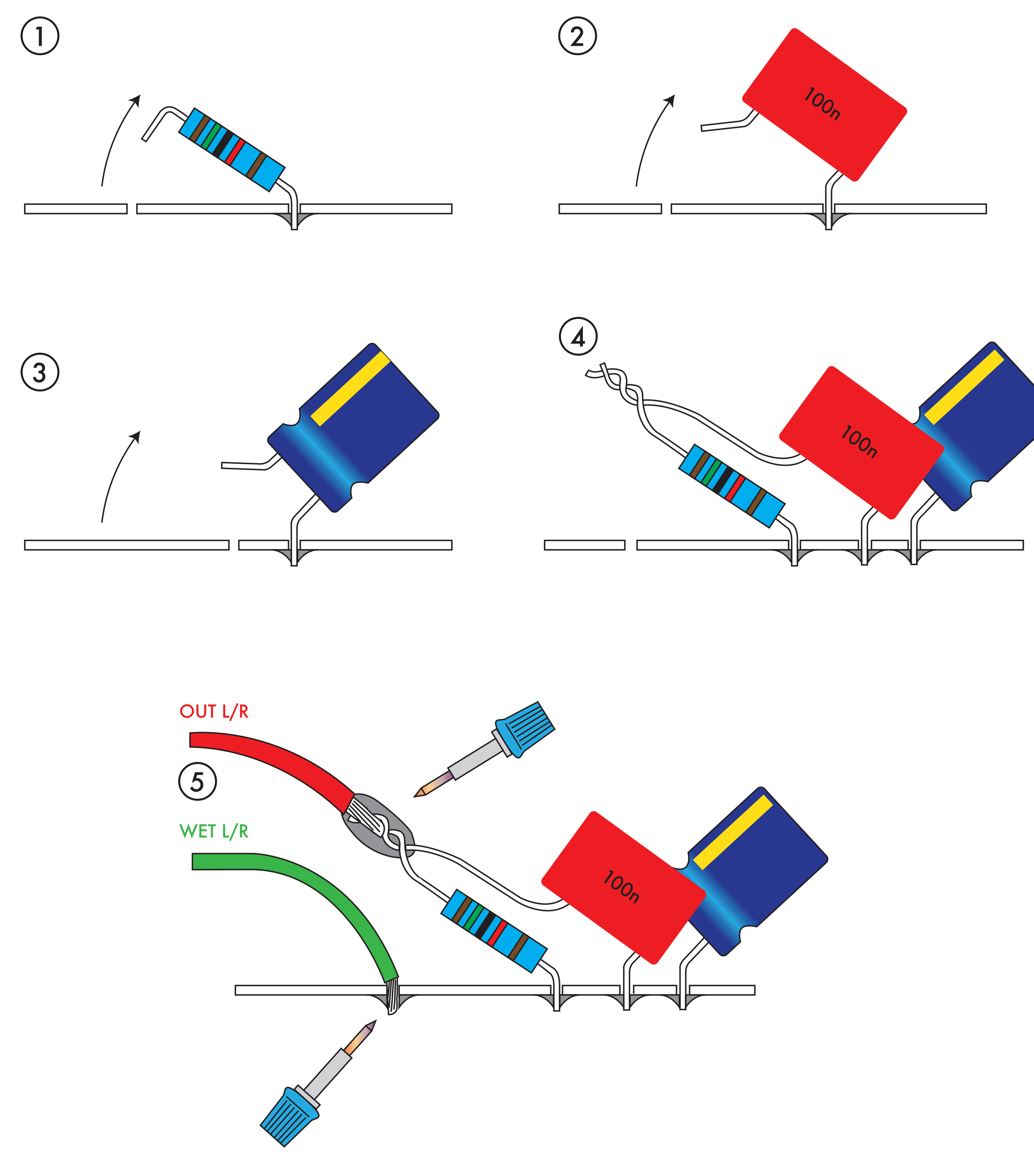
See the WET L and WET R points on the board image? In their original state they are connected to the points marked OUT L and R, and can be seen in the schematic here:



First off, the 100R output resistor comes, on the GSSL board, *after* the 100μ and the 100n output capacitors, not before them as indicated in the schematic. This is no biggie - the general idea is to separate the WET points/node on the schematic and board from the respective OUT points/node and inserting the CnB in between them. The WET side is the output of the first output opamp, which will serve as a buffer between the VCA and the CnB.

The CnB can be inserted either by desoldering and lifting component legs, or by cutting traces and tapping off the ends of the respective resistors. For the lifting method, lift the electrolytic capacitor, the 100n bypass capacitor and the 10K input resistor where they are marked OUT, i.e. on the side with the red circle on them, and soldering the three free component legs together - probably ideally with a piece of stiff wire bent to the right shape - you know - play a little dental technician :-)

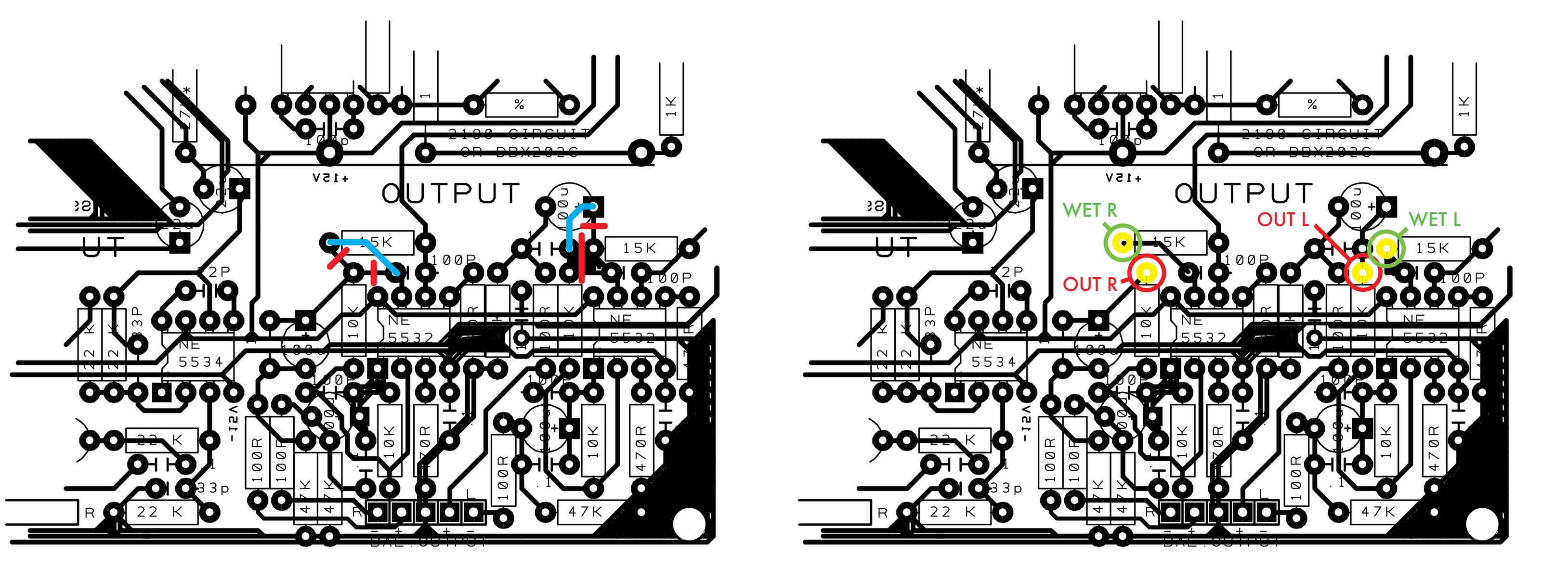
The WET connection is taken from the holes that are left in the board. The signal returning from CnB OUT is injected into the lifted, and soldered-together component legs, feeding both the + output through the capacitors and the output inverting opamp through the 10K resistor, and (hopefully) making its way successfully back out of your device.



Alternative: Trace Cutting Method

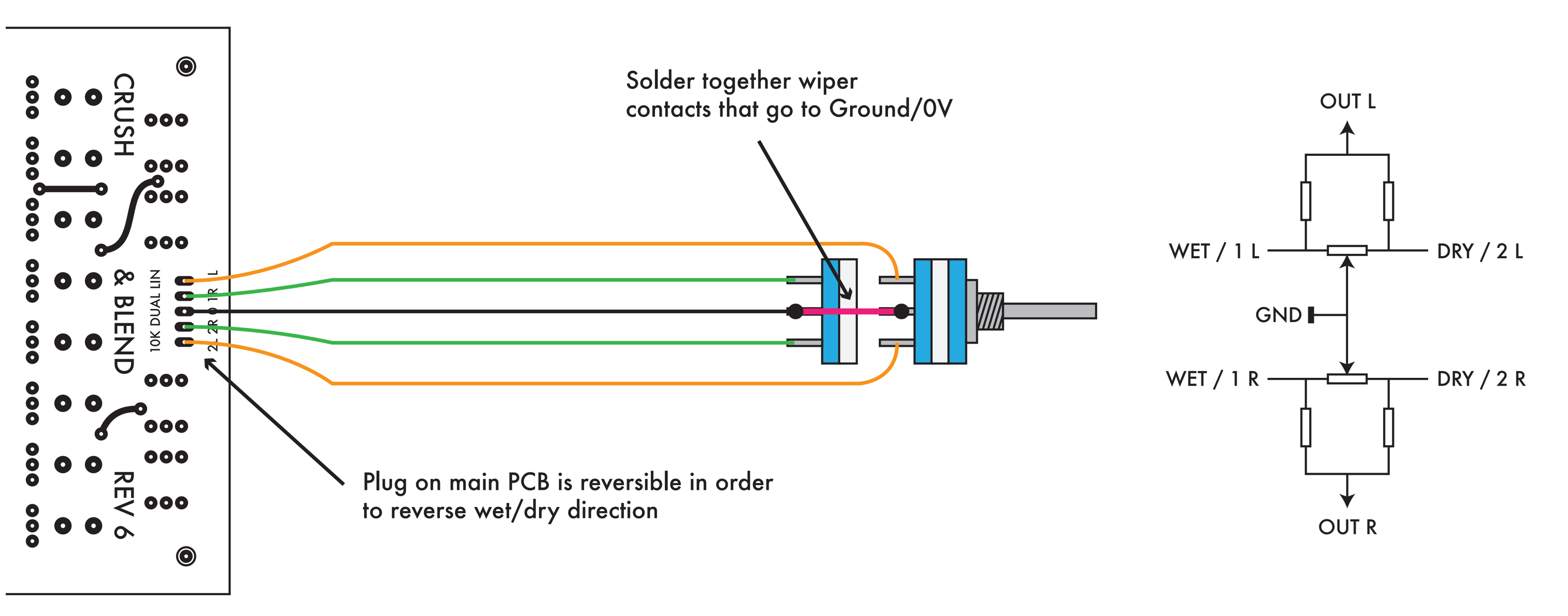
Ok so much for torturing the PCB with bent out components, now let's slice it up with a Dremel! The trace cutting method to me seems a little more invasive at first, but a lot cleaner and neater in the end. The idea is to separate, again, output opemp 1(+) from output opamp 2 (–).

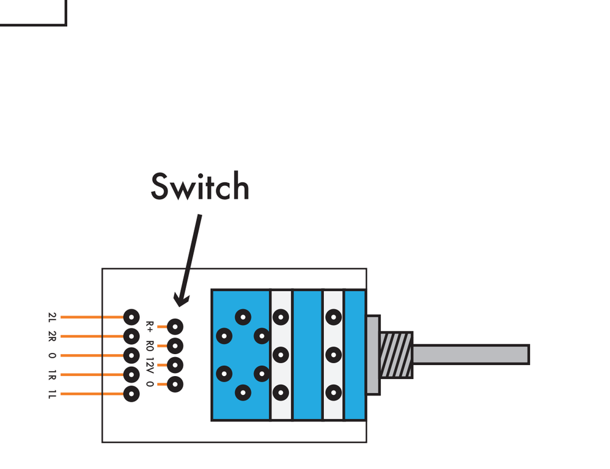
Cut where the red lines are, and reconnect the pads where the blue ones are. Then you can use the resistor ends as tapping points, both for your WET L/R and your OUT L/R as indicated by the circles on the right diagram:

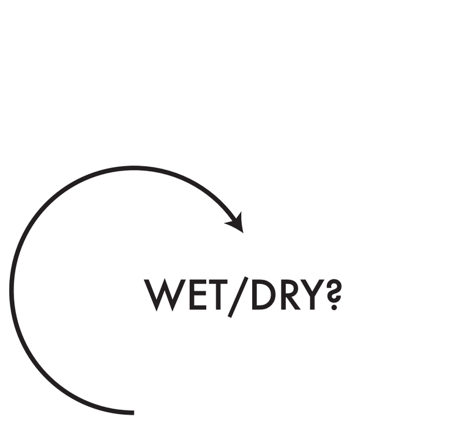


If you are still just building one, it would actually make sense to just cut the traces on the bare board and re-wire, and then give the resistors a small loop that sticks up before you solder them into the holes marked YELLOW. Then it will be easier to attach the wires that go to the CnB later. The same goes for the DRY L and R - if you can give the capacitors a small loop that sticks out from the bottom of the case, you won't have to solder things with raised legs.

Wiring the Pot:







For Push/Pull Pot with PCB:

The switch wiring is such that you can connect two wires to the GSSL +12V and 0V points, and two wires to R+ and R0 on the CNB, respectively.

When the switch is pulled, the CnB is IN, when it is pushed, it is BYPASSED. This is reversible by cutting the trace on the PCB that connects the R0 and 0 pins and soldering the R0 pin to the 12V pin, and reversing the wires going to the 12V and 0 pin - this reverses the switching order. Remember reversing 12V and 0 here needs to be done correctly or you'll pack 12V onto the CnB's ground plane and potentially blow it up. CnB is IN when relay is active.

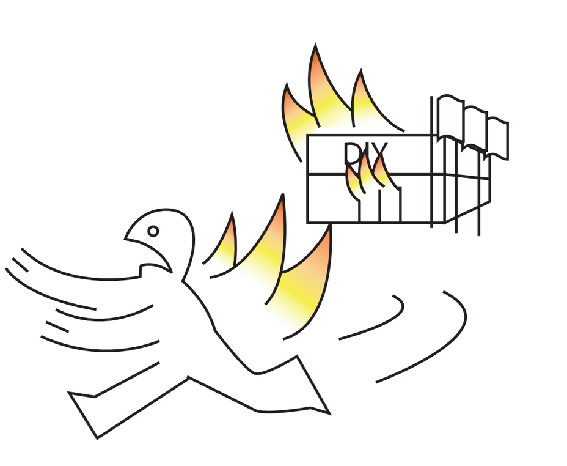
Direction of travel:

This is kind of tricky to understand because you are manipulating the 0V node on the wiper, and not the signal itself, so you kind of have to think backwards:

When pot wiper is turned all the way to one side and shorts 0V (Wiper) to 2R and 2L unit is 100% WET.
When it shorts 0V (Wiper) to 1R and 1L unit is 100% DRY.

That ought to work now. If not you can go to:

http://groupdiy.com/index.php?topic=61934



Häppy DIY,

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