

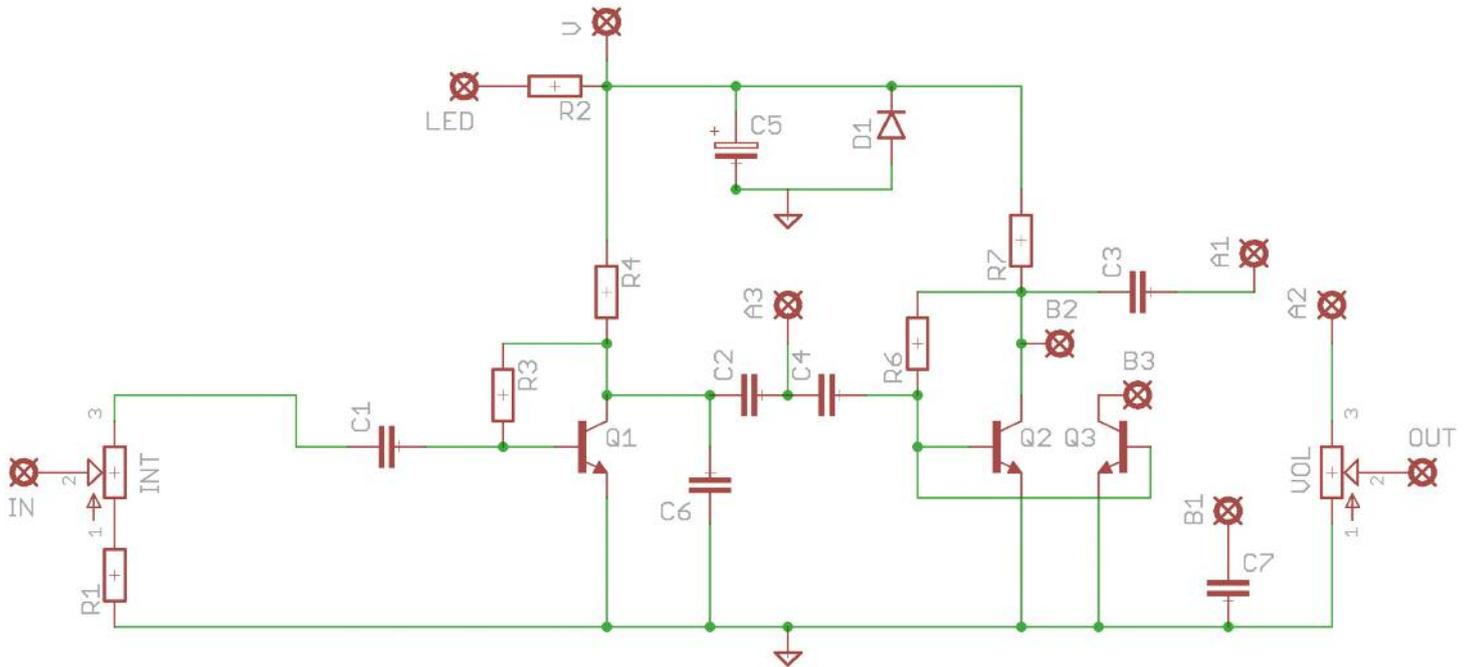


Hype Fuzz / Destructor Drive

One, two or three slabs of
fuzzy fun in one box



Schematic + Layout



BOM

| | | | | | |
|-----------|-----------|-----------|-----------|-------------|---------|
| R1 | 1K | C1 | 100n | Q1,2 | MPSA18 |
| R2 | 2K2 (CLR) | C2 | 100n | Q3 | 2N2907A |
| R3 | 2M2 | C3 | 100n | D1 | 1N4001 |
| R4 | 10K | C4 | Jumper* | INT | 100KB |
| R6 | 2M2 | C5 | 100u elec | VOL | 100KA |
| R7 | 10K | C6 | 100n | | |
| | | C7 | 100n | | |

Place a jumper wire across pads A1 and A2. More on that later.

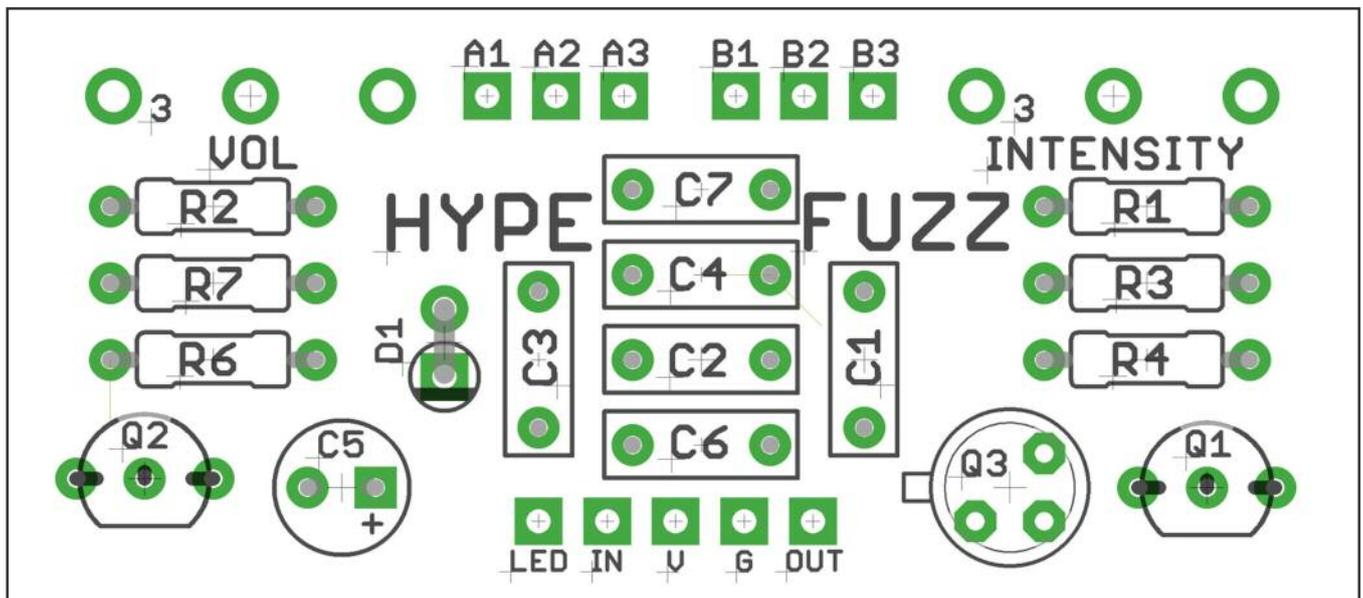
C4 has been included on the board as the schematic for the original shows it. However, that is probably a result of this being two smaller circuits joined together, C4 being in the input cap of the second circuit. Including this cap will result in a combined capacitance for C2 and C4 of 50n, which will significantly reduce the frequency range of the effect. Don't do it!

Q3 - only include if making the Hype Drive

C7 - only include if making the Destructor Drive Bass

C5 and **D1** are power filtering/polarity protection and are optional. Neither appear on the original pedals.

PCB Layout



PCB Layout ©2014 Pedal Parts Ltd.

The power and signal pads on the PCB conform to the FuzzDog Direct Connection format, so can be paired with the appropriate daughterboard for quick and easy offboard wiring.

Snap the small metal tag off the pots so they can be mounted flush in the box.

Pots mount on the same side of the board as the other components.



Pads A1-3 were included to allow you to switch off the second half of the circuit and take the output from the first gain stage, a dark-sounding boost. However, in practice there's too much signal being returned from the second gain stage by R6 to make this work.

Switching circuits

Pads B1-3 enable the wiring of a SPDT switch to change between different circuit variations. Refer to the schematic for what these pads connect to.

B2 connects to the collector of Q2. This should connect to the centre lug of whichever switch you choose to use.

B1 connects to C7. In the Destructor Drive Bass this is a low-pass filter which takes out a lot of top end.

B3 connects to the collector of Q3 which will give you the Hype Drive.

You can have any one of the above, a combination of any two, or indeed all three depending on your choice of switch and how you wire it.

Single Circuits

Hype Fuzz Only - Include Q3, omit C7, jumper pads B2-3.

Destructor Drive Only - Omit Q3 and C7, jumper pads B2-3.

Destructor Drive Bass Only - Include C7, Omit Q3, jumper pads B1-2.

Two Circuits

SPDT ON-ON Switch to pads B1-3 (2 to centre lug)

Hype Fuzz / Destructor Drive - Include Q3, omit C7.

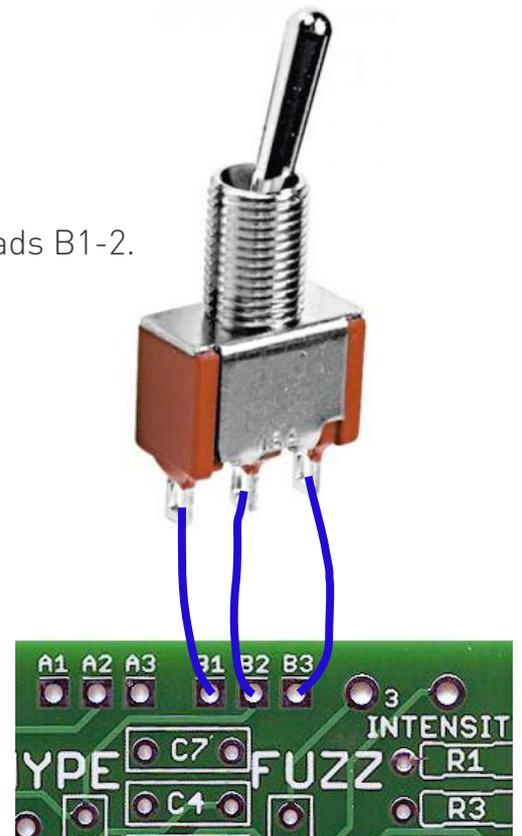
Hype Fuzz / Destructor Bass - Include Q3 and C7.

Destructor Drive / Bass - Include C7, omit Q3.

Three Circuits

SPDT ON-OFF-ON Switch to pads B1-3 (2 to centre lug)

Include Q3 and C7. Centre (OFF) position is Destructor Drive.



Oscillation Mod

You can get some crazy sounds out of all versions of this bad boy by lifting the circuit from ground with a pot.

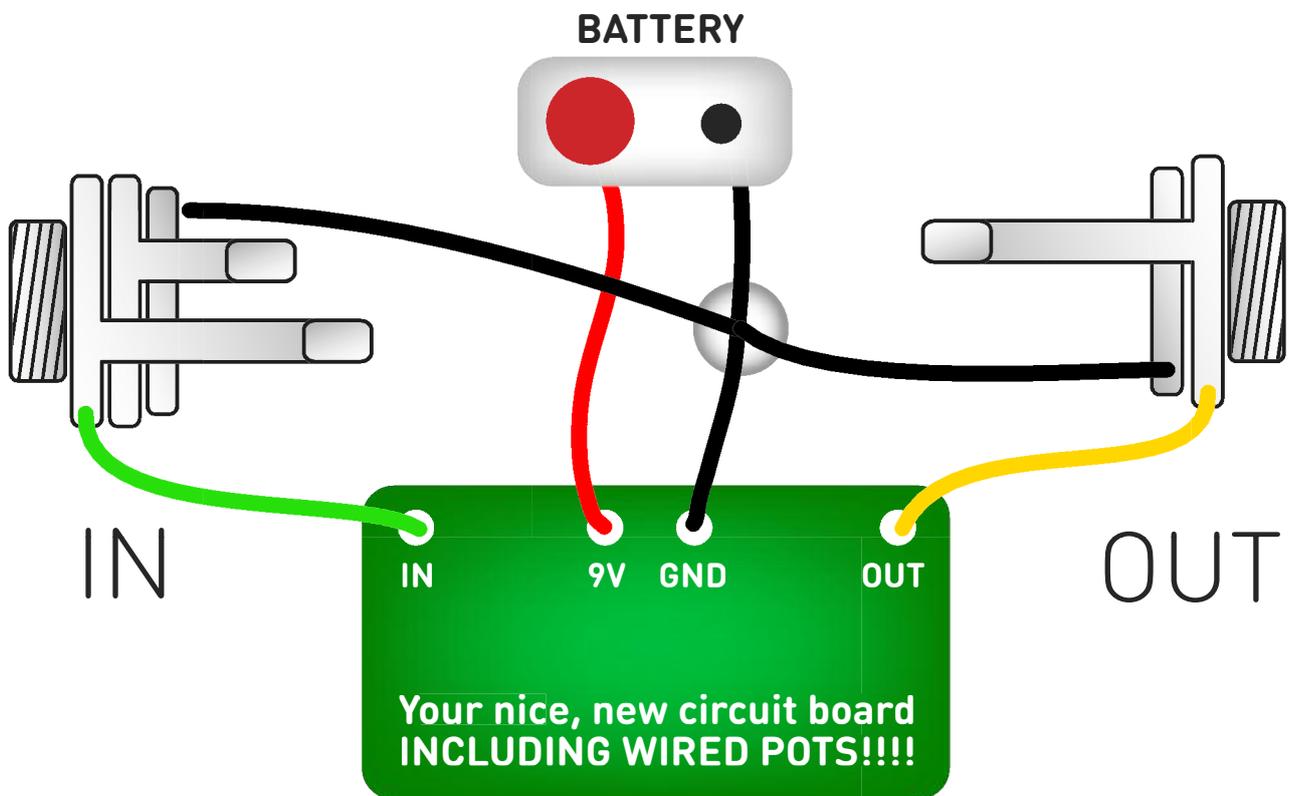
Simply wire a pot - anything from 1K to 100K, but small values will give you more control - between the PCB GND (pot pin 2) and the Supply GND (pot pin 1). This configuration of different pot tapers will give different sweeps. Linear is safe, but play with Log and Anti-log if you have any available.

Starve Mod

Starving a fuzz of those precious volts can yield interesting results.

Try the same as above but between the PCB V pad and your Supply V.

Test the board!



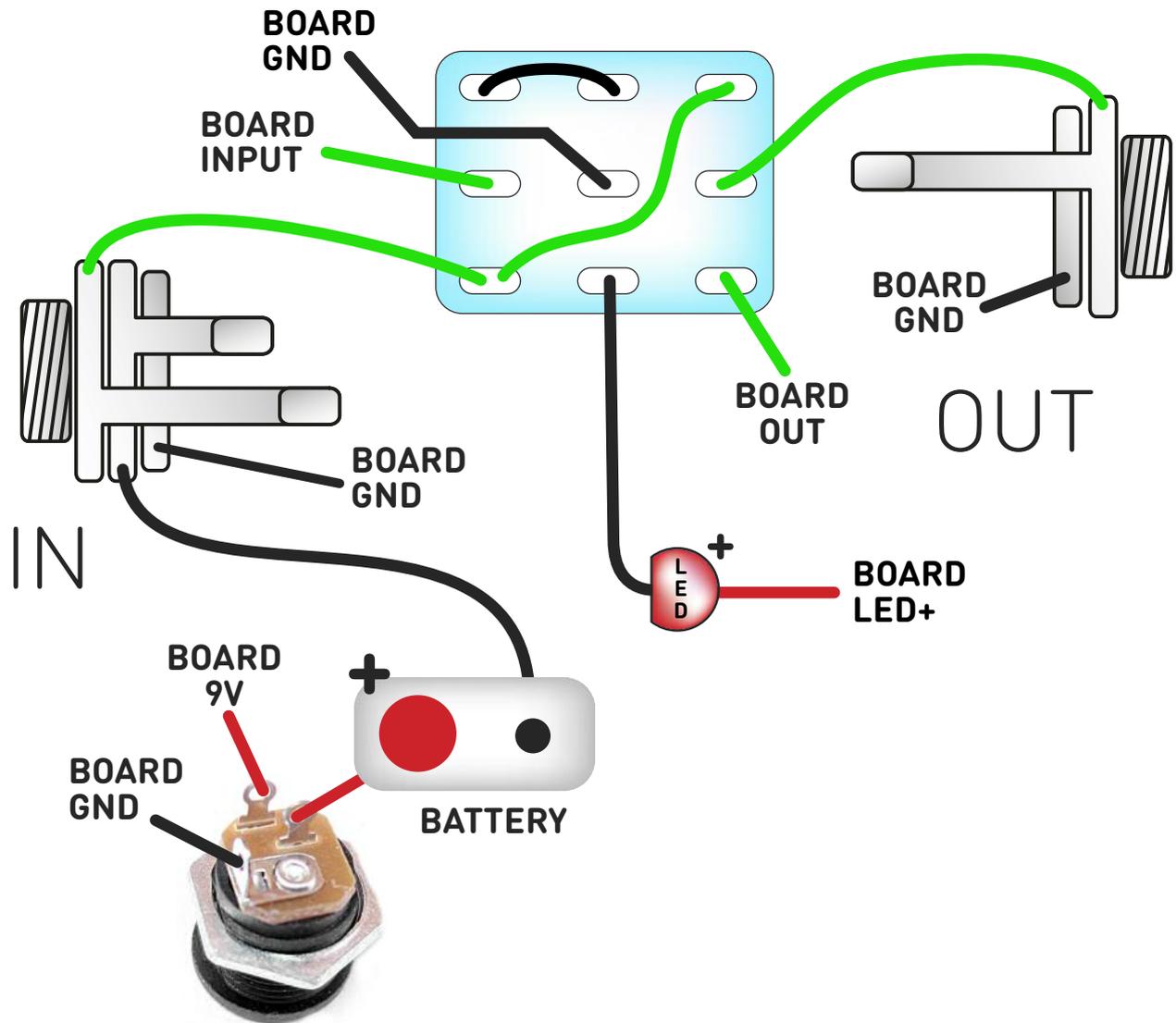
UNDER NO CIRCUMSTANCES will troubleshooting help be offered if you have skipped this stage. No exceptions.

Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

If it works, crack on and do your switch wiring. If not... aw man. At least you know the problem is with the circuit. Find out why, get it working, THEN worry about the switch etc.

Wire it up (if using a daughterboard please refer to the relevant document)



Wiring shown above will disconnect the battery when you remove the jack plug from the input, and also when a DC plug is inserted.

The Board GND connections don't all have to directly attach to the board. You can run a couple of wires from the DC connector, one to the board, another to the IN jack, then daisy chain that over to the OUT jack.

It doesn't matter how they all connect, as long as they do.

This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal.

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