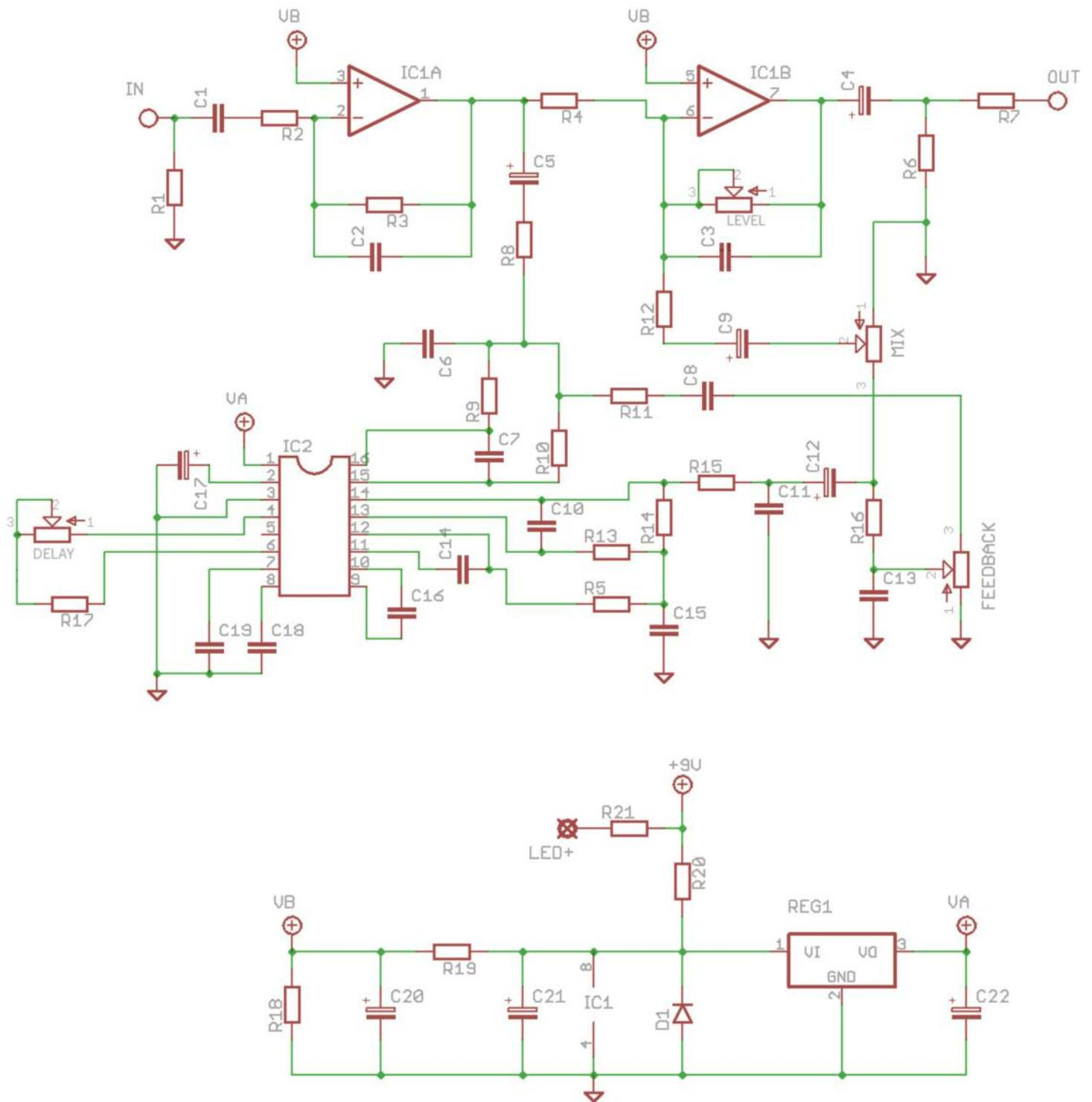


EchoBlue Delay

PT2399 Delayayayayayay

PedalParts.co.uk

Schematic



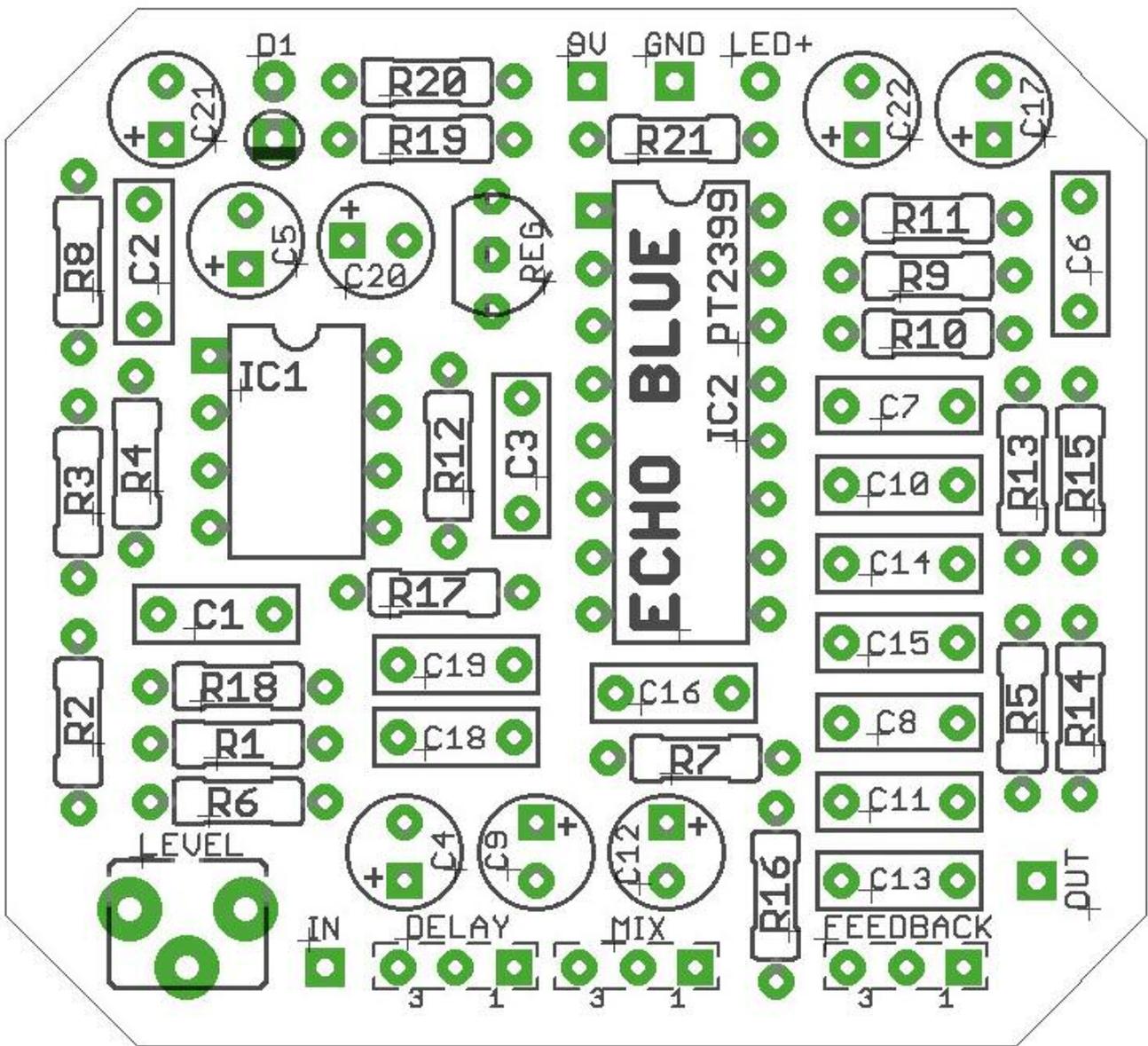
NOTE:

The PT2399 chip is not a super-hi-fi device. The repeats on this delay will gradually degrade. It gives it character and warmth. Embrace it or go buy a Boss unit.

BOM

R1	1M	C1	22n
R2	180K	C2	47p
R3	360K	C3	100p
R4	22K	C4	1u electrolytic
R5	10K	C5	1u electrolytic
R6	100K	C6	4n7
R7	1K	C7	2n2
R8	10K	C8	22n
R9	10K	C9	1u electrolytic
R10	10K	C10	2n2
R11	5K1	C11	10n
R12	20K	C12	1u electrolytic
R13	10K	C13	47n
R14	20K	C14	100n
R15	1K	C15	15n
R16	2K	C16	100n
R17	2K7	C17	47u electrolytic
R18	10K	C18	100n
R19	10K	C19	100n
R20	33R	C20	47u electrolytic
R21	CLR (2K2)	C21	100u electrolytic
		C22	47u electrolytic
D1	1N4001		
IC1	TL072	DELAY	50KB
IC2	PT2399	FEEDBACK	50kB
		MIX	50KB
REG1	7805 / L78L05	LEVEL	22KTRIM

If you find the effect locks up when powered, connect pins 3 and 4 of the PT2399 on the bottom of the PCB. Just jumper the pads.



VOLTAGE REGULATOR:

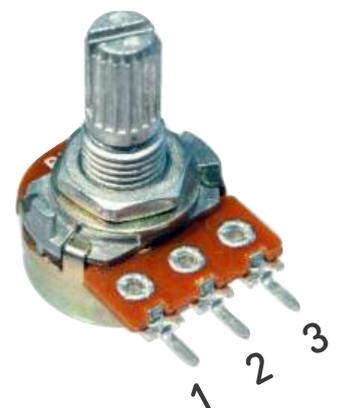
Pinout on the board is for a LM7805. **If using a LM78L05 (which is supplied with the kit) then it should be oriented opposite to the part shown, i.e. flat side should face the PT2399.**

LEVEL:

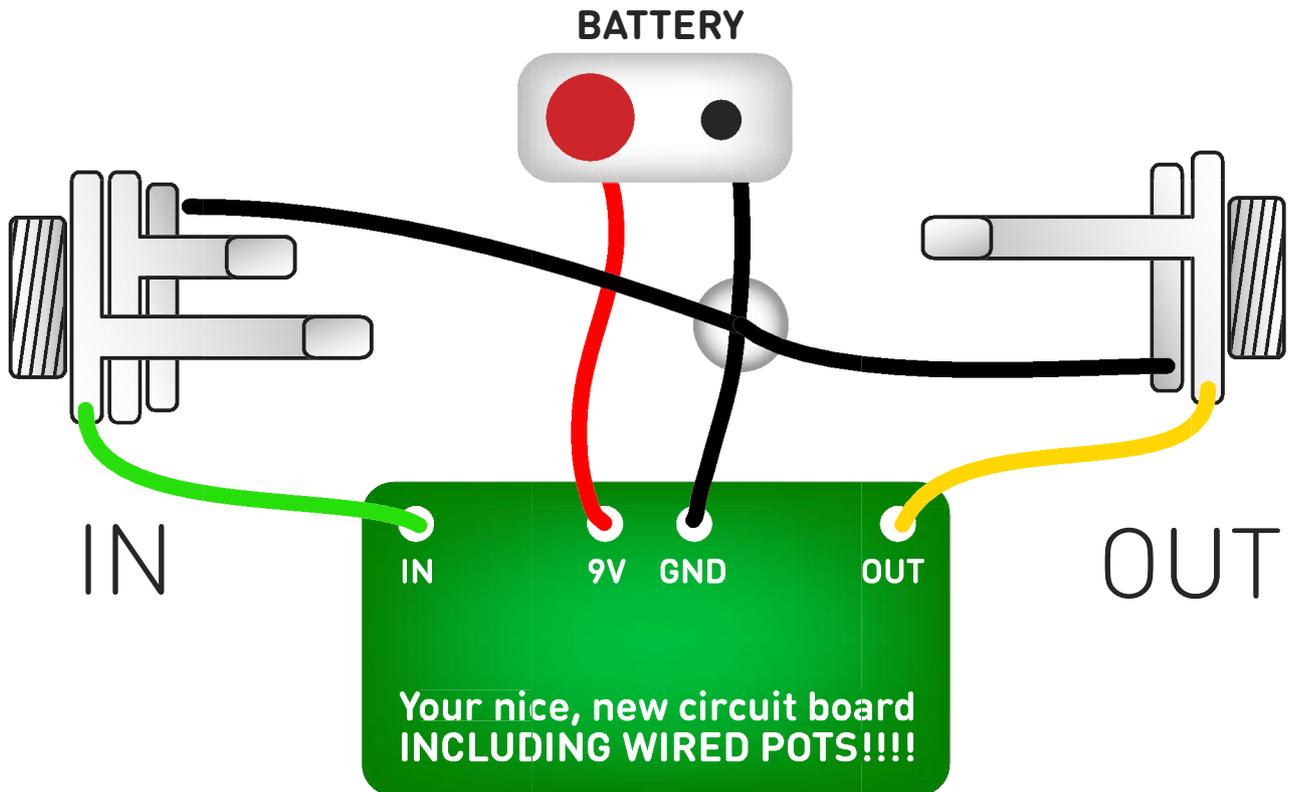
This adjusts the maximum volume level of the effected signal. Set the mix pot to maximum and adjust LEVEL until the first delay repeat is the same volume as the original signal. Set lower or higher if you prefer.

Use a heat sink when soldering the voltage regulator and the diode. Use sockets for the ICs unless you're a soldering wizard.

Snap the metal tags off the pots to mount them flush.



Test the board!



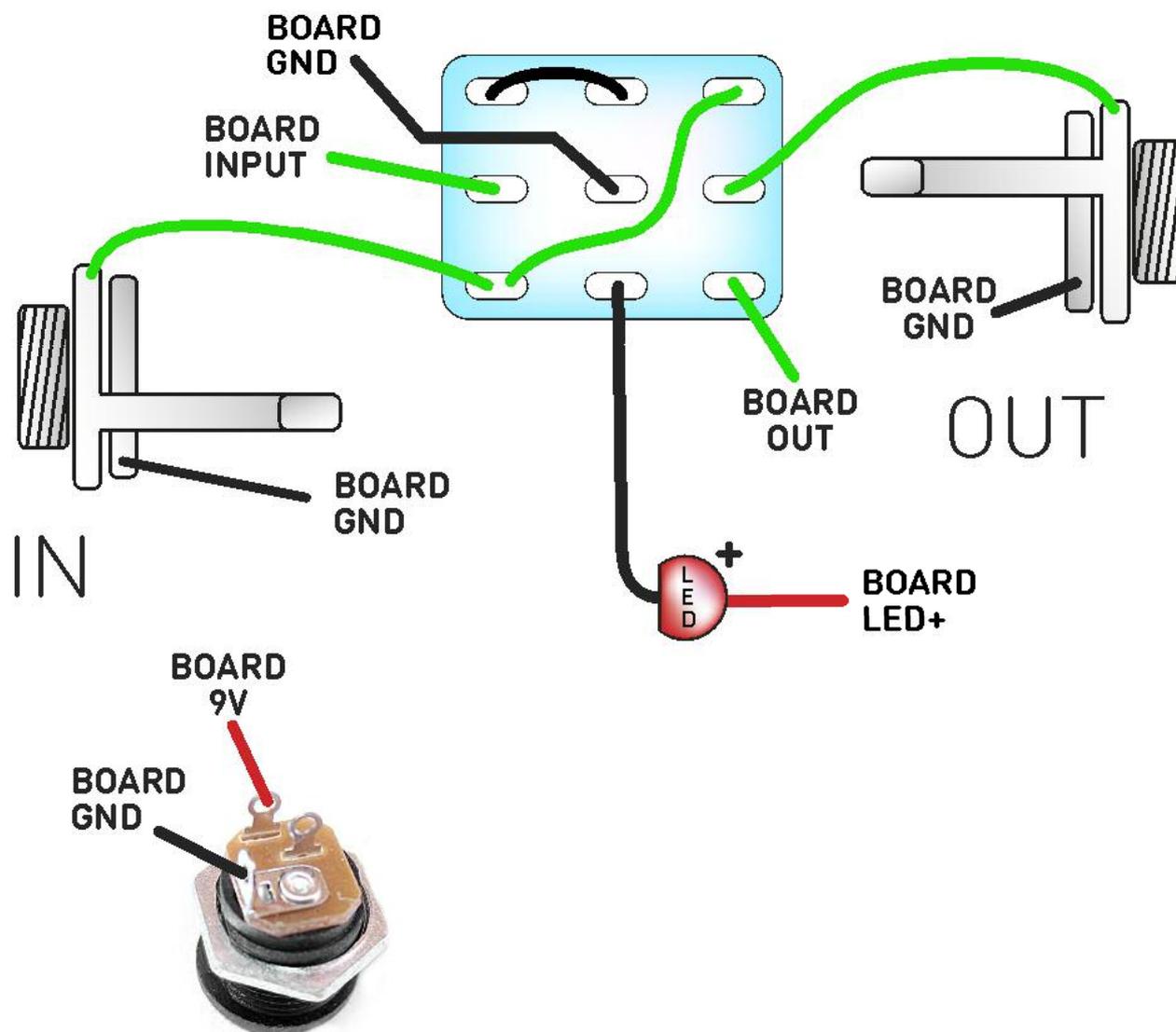
Battery clip is supplied to test the circuit. Power supply is recommended when using the finished delay as it will EAT batteries.

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



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.

Now... REPEAT AFTER ME ME ME ME ME ME!

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