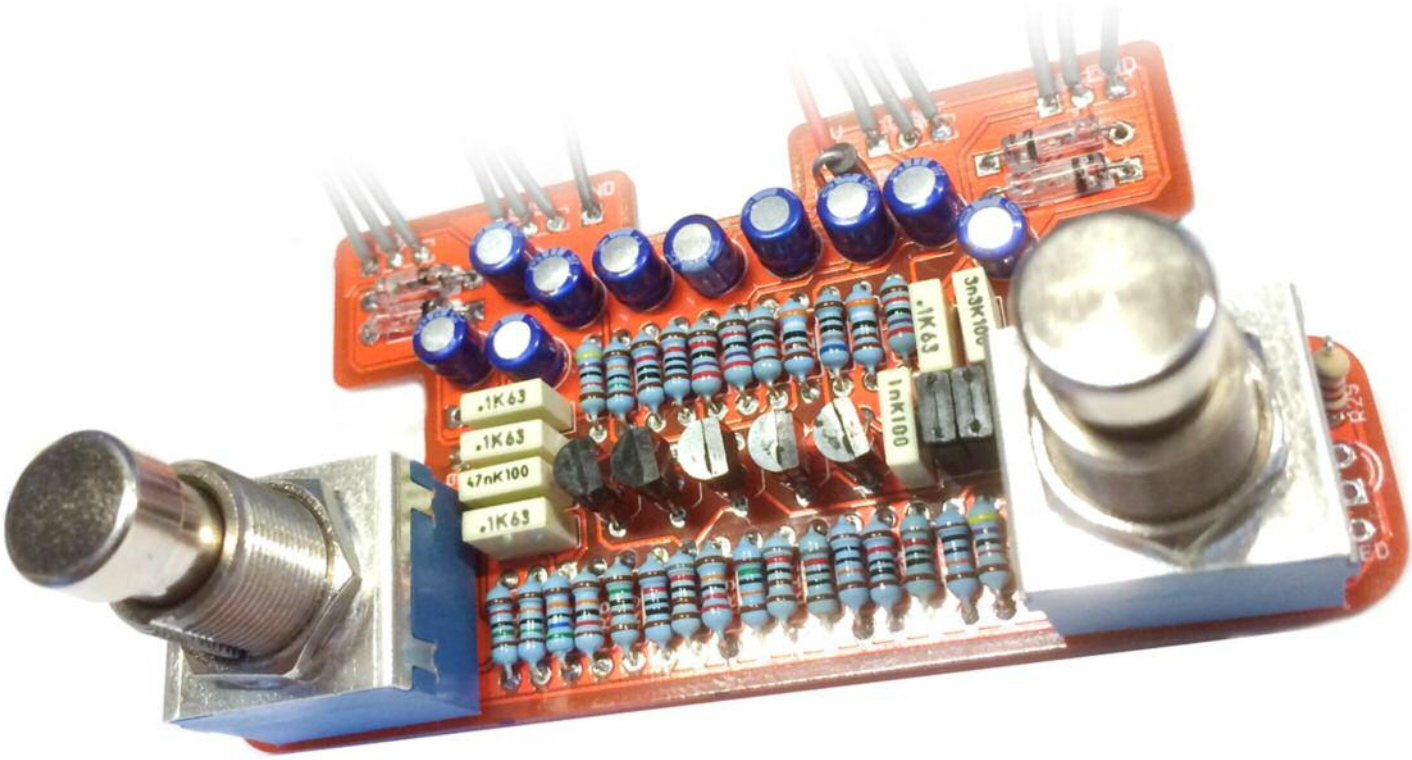

Flender

Crazy, intense fuzz with blend control to keep things sane

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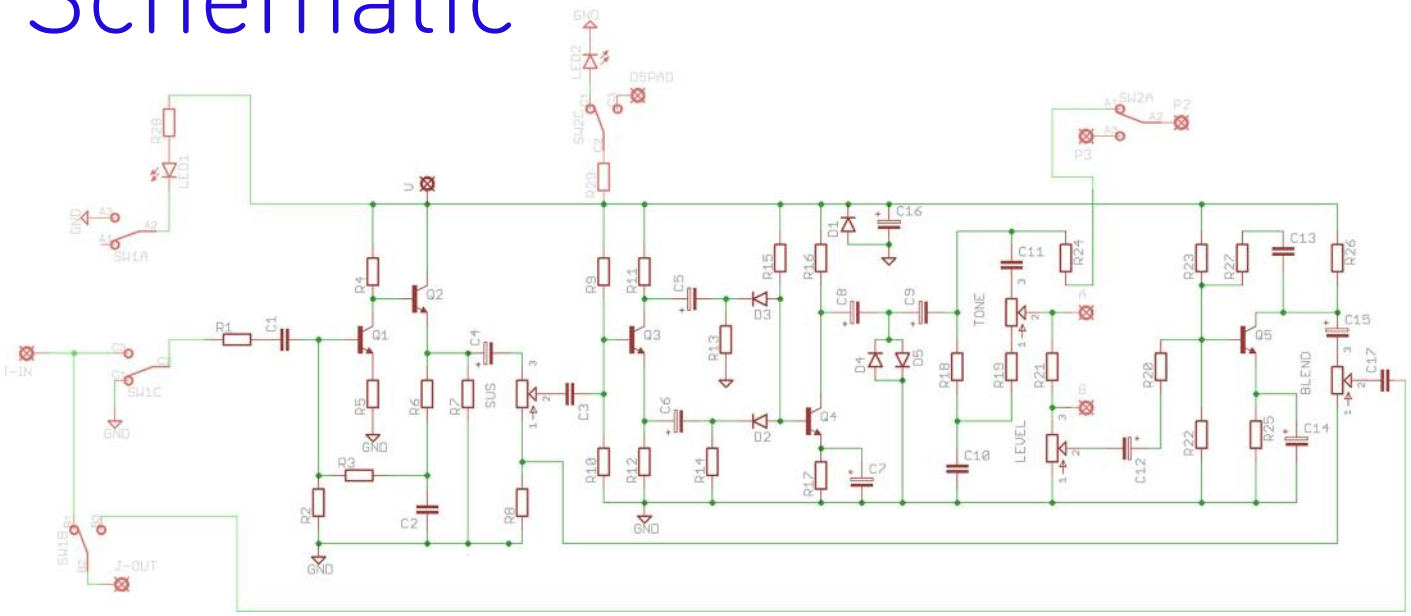
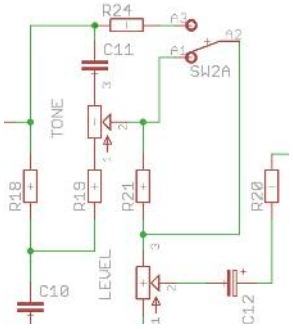
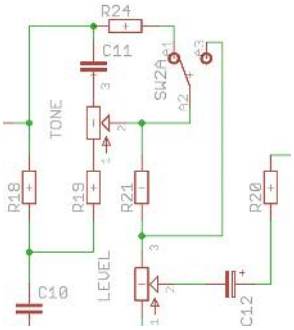
Schematic



TONE BOOST CONFIGURATIONS



ORIGINAL



REISSUE

Main schematic shows all the switch connections and the pads to build the two different tone boost configurations, which are shown above. More later...

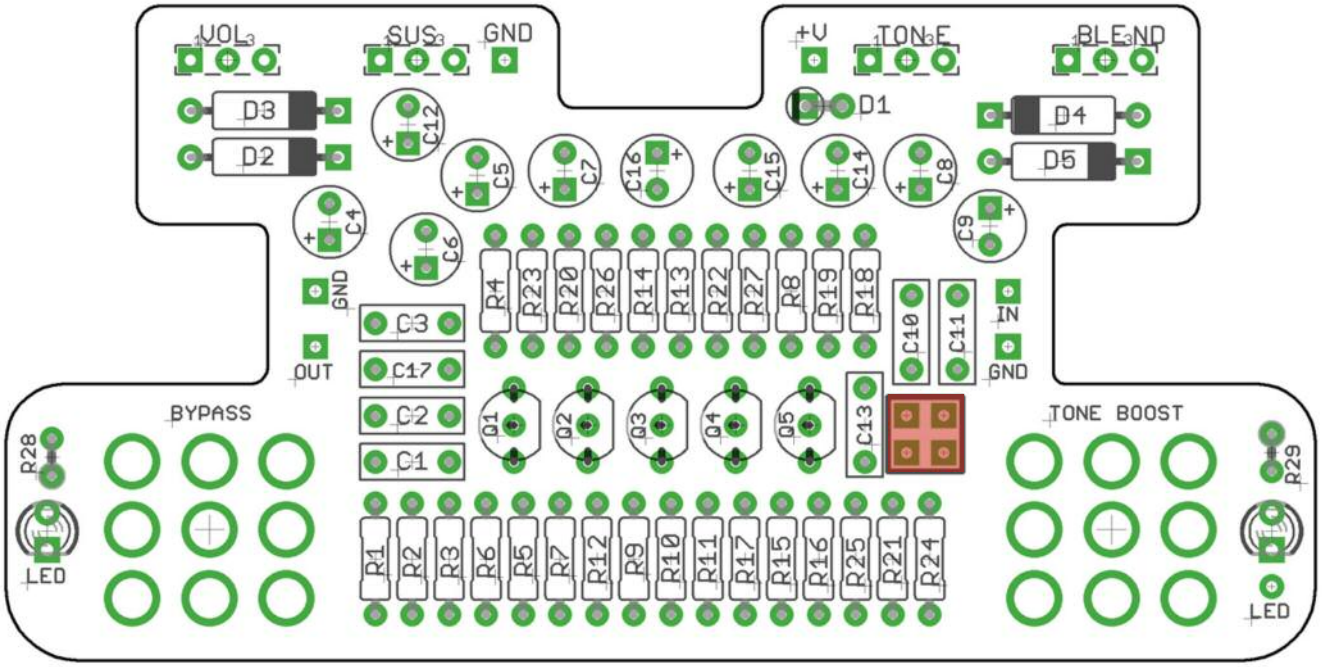
*Other transistors can be used.

BOM

R1	15K
R2	150K
R3	560K
R4	47K
R5	1K5
R6	120K
R7	10K
R8	680R
R9	220K
R10	150K
R11	8K2
R12	8K2
R13	27K
R14	27K
R15	100K
R16	10K
R17	820R
R18	27K
R19	3K9
R20	10K
R21	100K
R22	18K
R23	150K
R24	47K
R25	820R
R26	10K
R27	3K9
R28	2K2 (CLR)
R29	2K2 (CLR)

C1	100n
C2	47n
C3	100n
C4	10u elec
C5	10u elec
C6	10u elec
C7	10u elec
C8	10u elec
C9	10u elec
C10	100n
C11	3n3
C12	10u elec
C13	1n
C14	10u elec
C15	10u elec
C16	100u elec
C17	100n

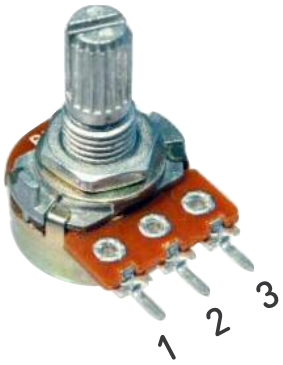
Q1-5	2N5088*
D1	1N4001
D2-5	1N34A
BLEND	100KB
SUSTAIN	10KA
TONE	20KB
LEVEL	50KA
SW1-2	3PDT FOOTSW.



Snap the little metal tag off the pots to mount them flush in the box.

You MUST use some kind of heat sink on the legs of the diodes and the transistors when soldering. They aren't keen on heat. Any more than 3-4 seconds of iron and they're toast.

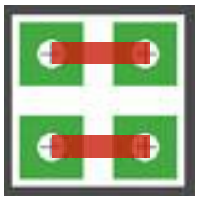
ALL the components mount on the top side of the board.



It's a good idea to run the pot wires from the back of the PCB (opposite side to the components) in order to ensure plenty of clearance for the jack sockets when assembling. Make sure you give yourself plenty of length on the wires so assembly isn't tight.

The pads marked in RED above are to select your Tone Boost configuration. You could add header pins and use jumpers to select between them, but its easy enough to just use jumper wires. Honestly, the Reissue configuration sucks - there's a big volume drop. Just go with the original.

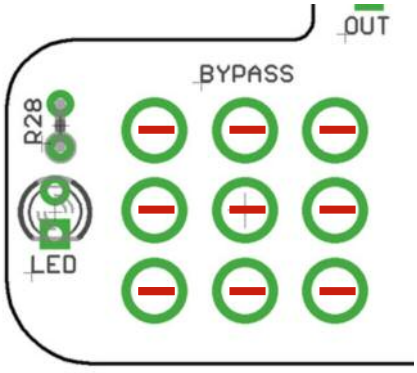
ORIGINAL



REISSUE

FOOTSWITCHES

Make sure you orientate them with the tags horizontally as shown. Its a good idea to put the them in place in the enclosure and loosely tighten them, then place the PCB on top to get the position right before soldering.



LEDs

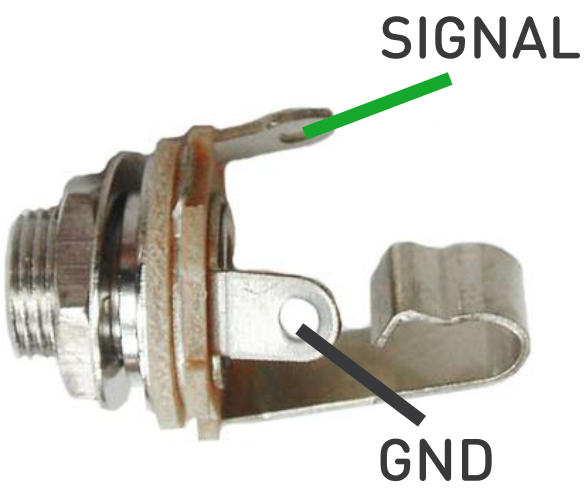
Leave these out until you're boxing it all up - see later.

WIRING FOR TESTING

Connect everything up but the LEDs. That includes the footswitches.

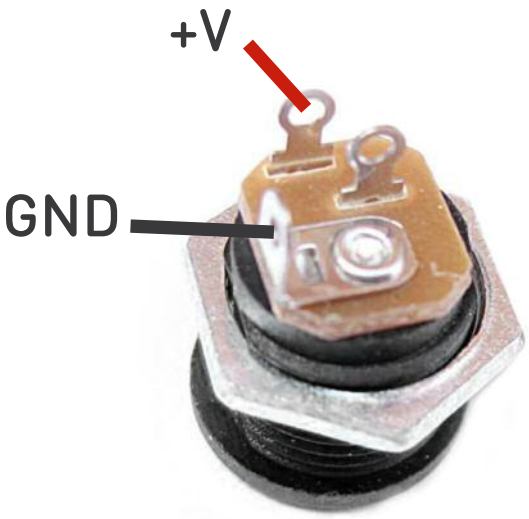
Ensure your power supply is 9V Tip Negative, or connect up a battery for now. If connecting a battery, solder long lengths of wire to the +V and GND pads on the PCB, then attach the battery to the other end of these. This saves desolding stuff from the board, which is a pain.

JACK SOCKETS



SIGNAL is JACK IN and JACK OUT on the PCB. Each socket has its own GND connection conveniently placed.

DC SOCKET



Ignore the third tag - you only need that if wiring up for battery.

Plug in. Go!

If it works, crack on and get it in the box. If not, troubleshoot. Check you have everything in the right place and reflow any poor joints.

BOXING UP

There's plenty of space in there, but you may need to turn the jack sockets one way or the other to ensure you clear the PCB.

Turn your pots as shown to clear the jack sockets.

What about my LEDs?

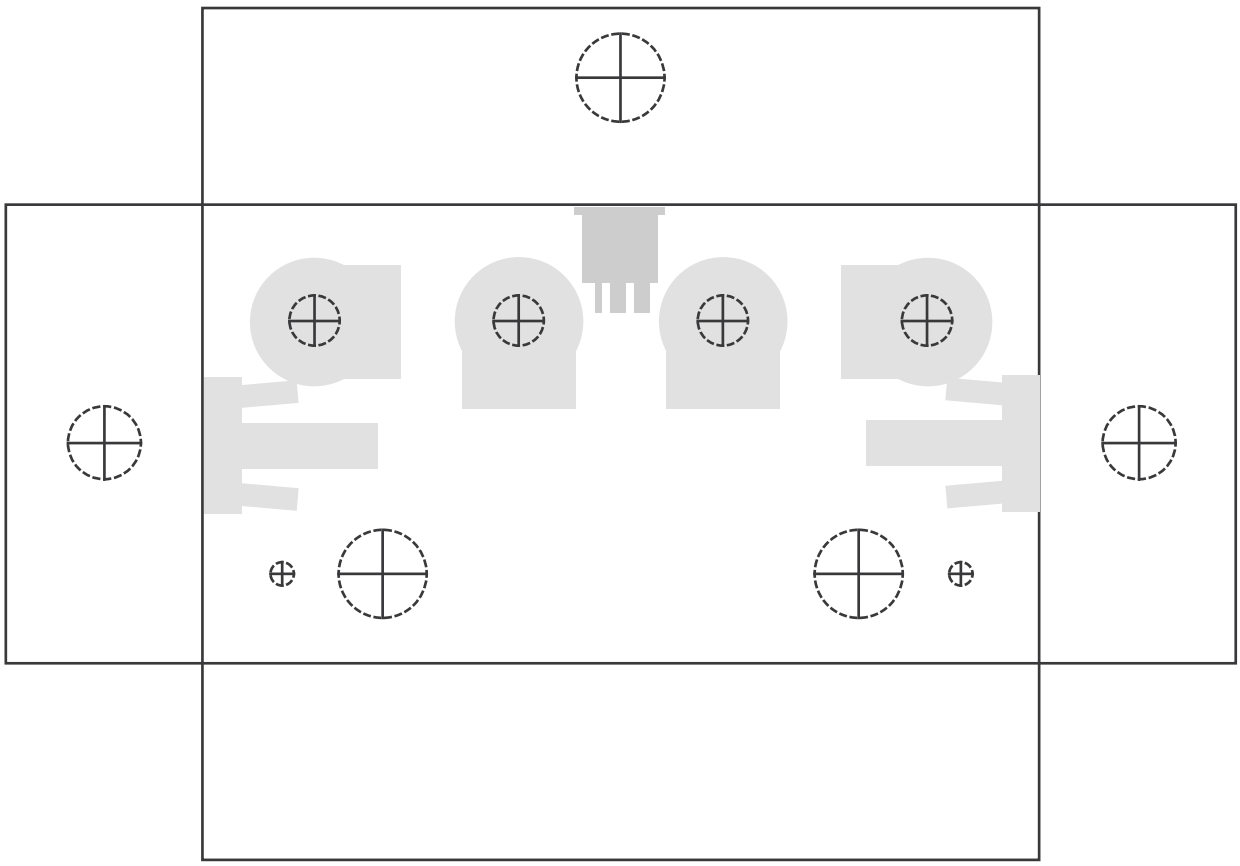
Pre-drilled enclosures are supplied with 3mm holes for the LEDs, rather than larger ones that require a mounting bezel. Why? Because you can hold the LED securely in place with the PCB. When you come to box up your lovely new circuit, get the pots in place first. Then the jacks. Now, slide your LEDs all the way into the PCB (short leg to square pad) and bend the legs ever so slightly so they don't fall out. Alternatively put a little bluetac on there. Now locate your footswitches into place and tighten.

When everything is secure, let your LEDs slide down into the holes - use some needle-nosed pliers or skinny fingers to position them fully in the holes. I won't kid you, its a little fiddly but worth it for the neat finish you'll get.
No bezel = happy pedal.

Once in place, solder. Those little lights aren't going anywhere!

Hang on - there's an extra pad next to the Tone Boost LED. Yes - you can use a common-cathode tri-colour LED if you like, to show a different colour depending on selection, rather than the standard on-off with a normal LED.

Drilling template - 1590B



Please check positioning before drilling - those holes are your responsibility and these templates are just a guide. Pots are spaced 27mm.

Recommended drill sizes:

Footswitch, DC	12mm or 13mm with wiggle room
Jack sockets	9.5-10mm
Pots	7mm

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