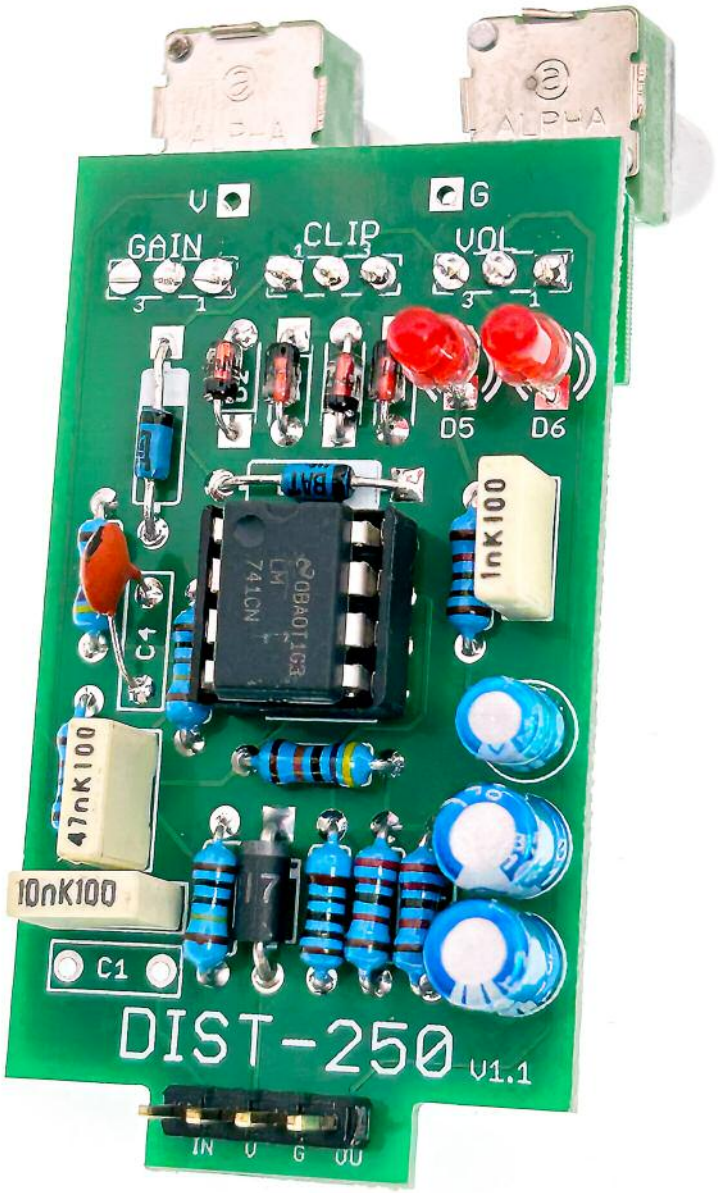
FuzzPup



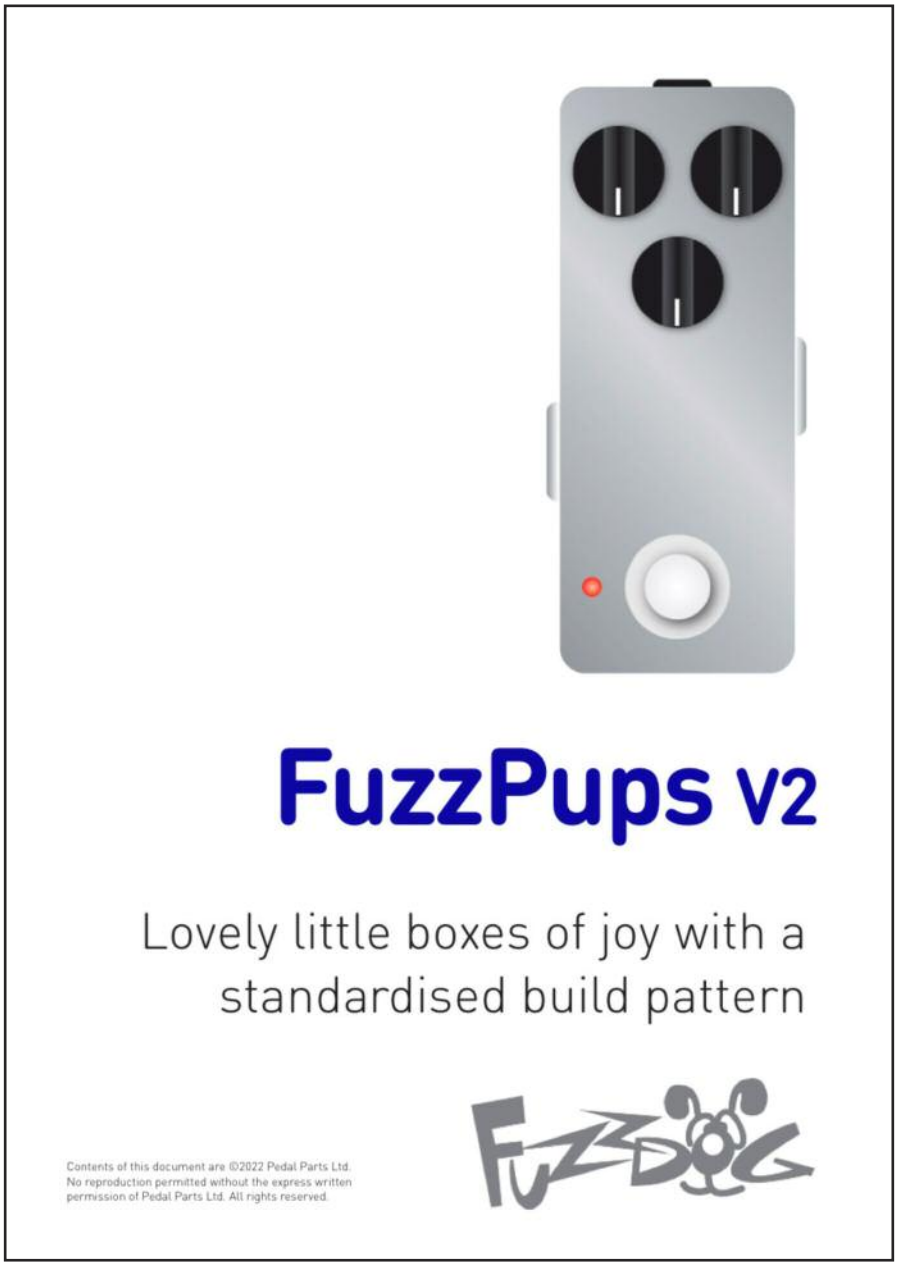
Dist+

Classic distortion tones

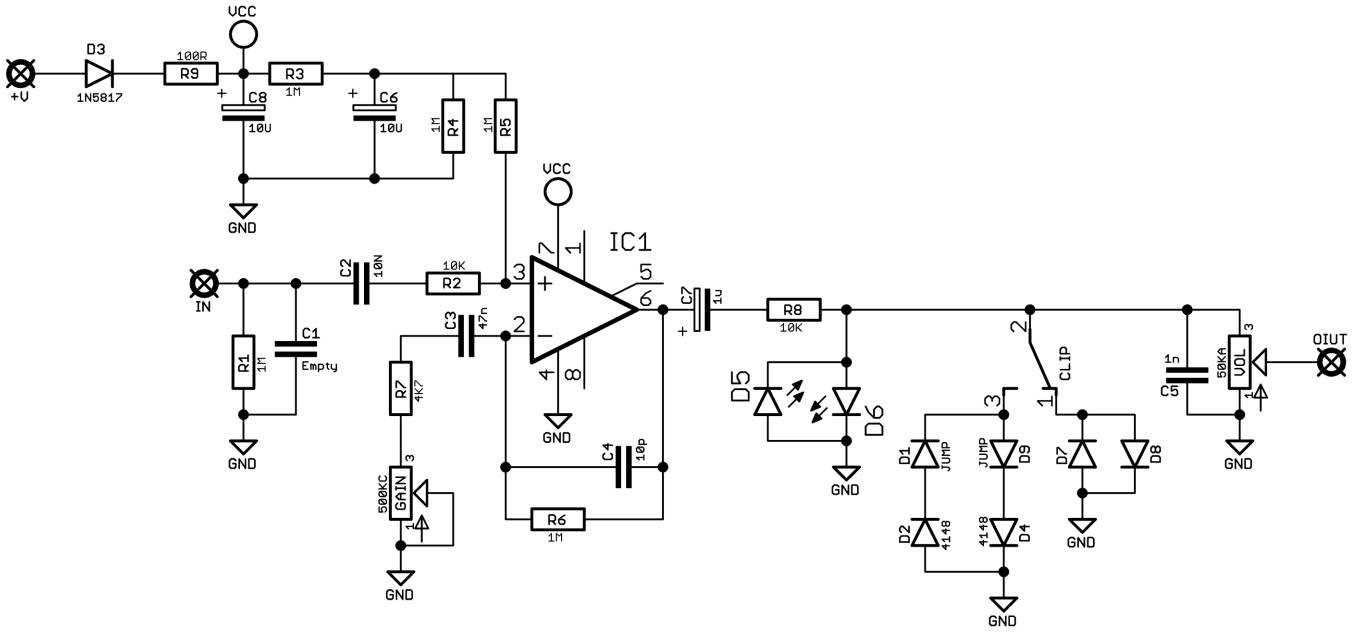
IMPORTANT
Before you start...

Grab the general build doc that covers all FuzzPup V2 builds. Most of the information you need for this build is in there.

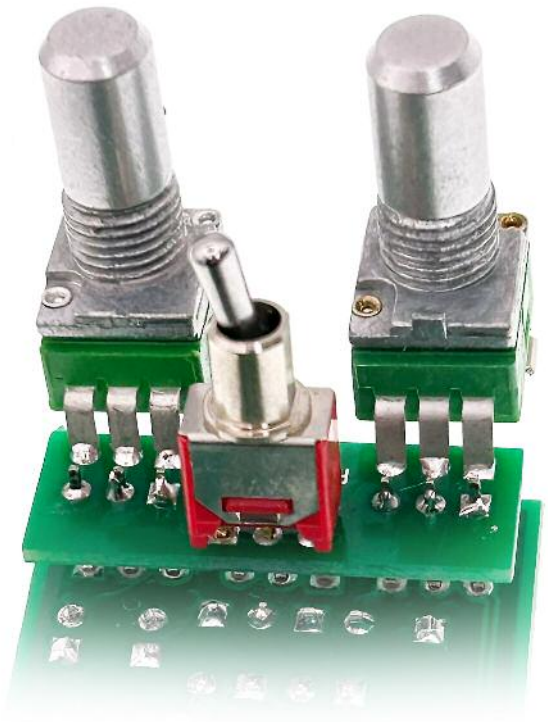
Read it? OK, carry on.



Schematic + BOM



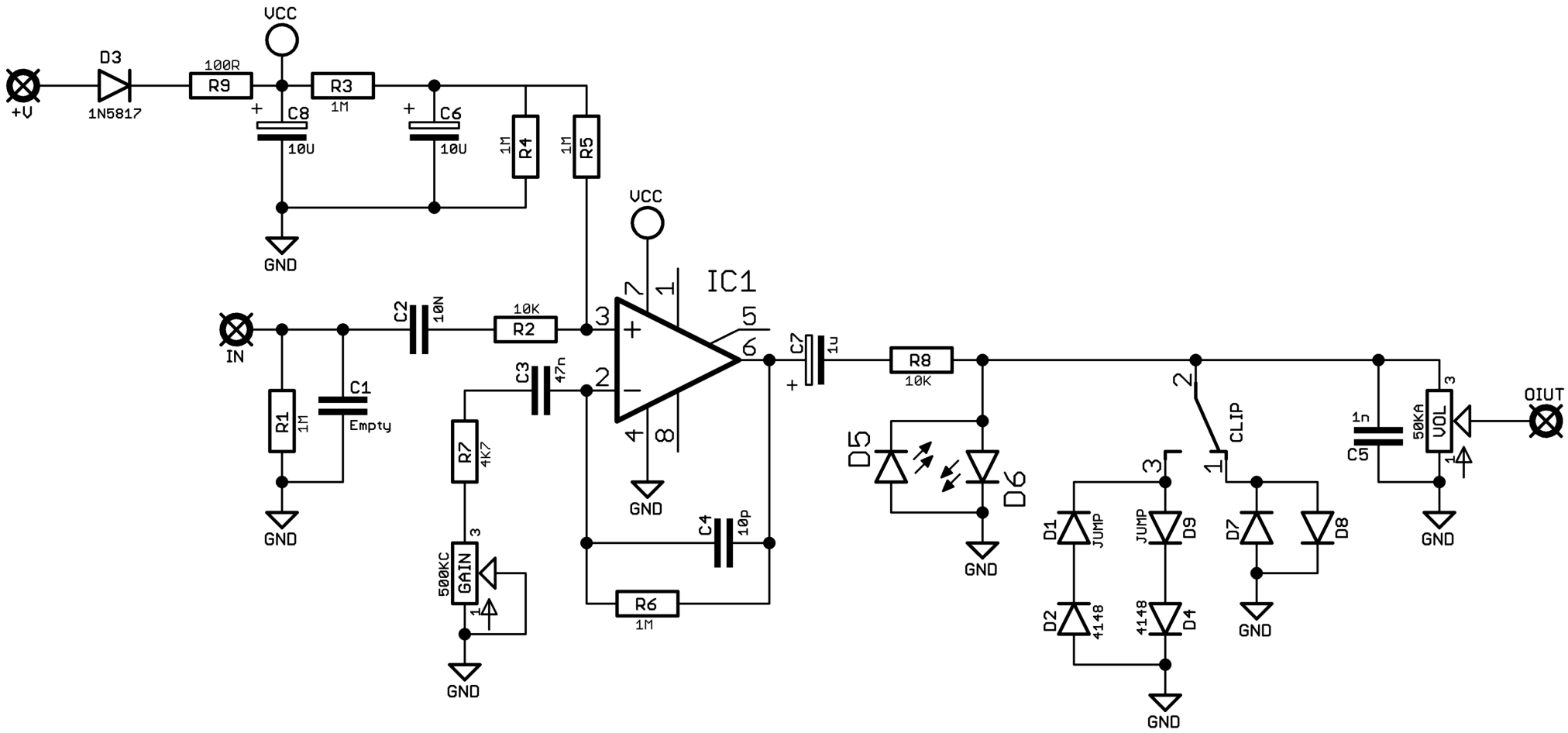
R1	1M	C1	10p (Empty)	IC1	LM741
R2	10K	C2	10n		
R3	1M (22K)	C3	47n	D3	1N5817
R4	1M (22K)	C4	10p (22p)		
R5	1M (22K)	C5	1n	GAIN	500KC*
R6	1M	C6	10u elec	VOL	50KA (100KA)
R7	4K7	C7	1u elec (4u7)		
R8	10K	C8	10u elec		
R9	100R				



BOM is for Distortion+. Values in blue will get you the OD250.

D1, 2, 4-9 depend on which clipping configuration you're opting for.
See page 5.

*Originally 1MB but the sweep is awful.


+V
D3
1N5817
100R
R9
VCC
C8
10U
R3
1M
C6
10U
1M
R4
1M
R5
GND
IN
C2
10N
10K
R2
C1
Empty
R1
1M
GND
C3
47n
R7
4K7
500KC
GAIN
GND
VCC
IC1
C4
10p
R6
1M
GND
C7
1u
R8
10K
D5
D6
GND
D1
JUMP
D2
4148
D9
JUMP
D4
4148
GND
CLIP
D7
D8
GND
C5
1u
50KA
VOL
GND
OIUT

Clipping diodes

As you can see on the schematic, we have provision for three sets of clipping diodes on the PCB. You can use any or all of them combined with the correct switch type.

D5-6 (LEDs) are always in the circuit if you choose to populate those spots.

D7-8 are are connected to CLIP-1. If using only these place a jumper as shown below in red.

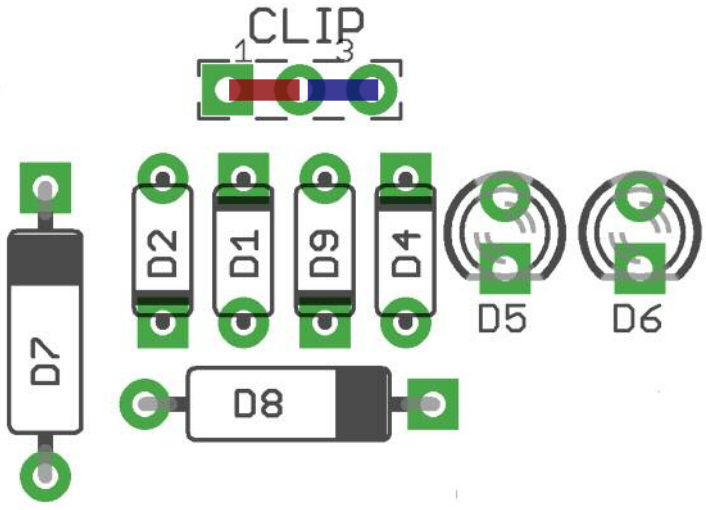
D1-2-4-9 are connected to CLIP-2. If using only these place a jumper as shown below in blue. You can use these four diode spots for any combination you want, as long as you have one diode in each direction. I.e. 1N4148 in D2 and D4, jumper D1 and D9 for a standard clipping pair. For asymetrical clipping put another diode in D1 and jumper D9. Or populate all four if you want.

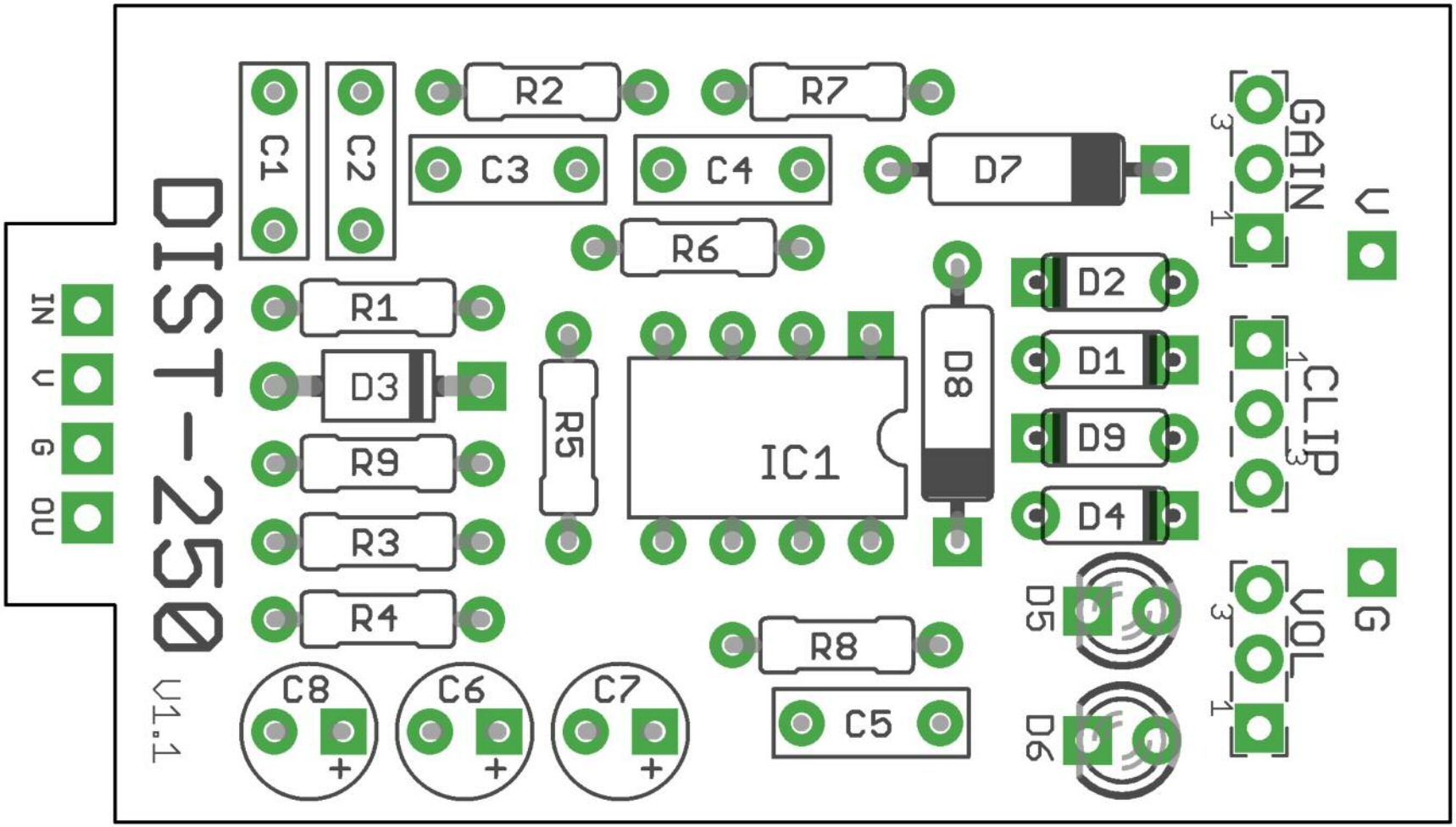
Why three sets, and how does that work? Your signal will always use the simplest path to ground. LEDs have a large voltage drop (1.2V - 3V depending on colour). This is a lot. With the LEDs being the only path, your signal will clip using those. If an alternative path with a lower voltage drop is present, then the LEDs will be ignored and the new path will be used to clip.

Example configurations

D5-6 - red LEDs, **D1,2,4,9** - 1N4148
SPDT ON-ON toggle switch
This gives two clipping variations.

D5-6 - red LEDs, **D1,2,4,9** - 1N4148
D7,8 - BAT46
SPDT ON-OFF-ON toggle switch
This gives three clipping variations, with the LEDs doing the clipping in the centre (off) position.





Everything else you need is in the
general build doc you've already read.

Head back to that.

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