

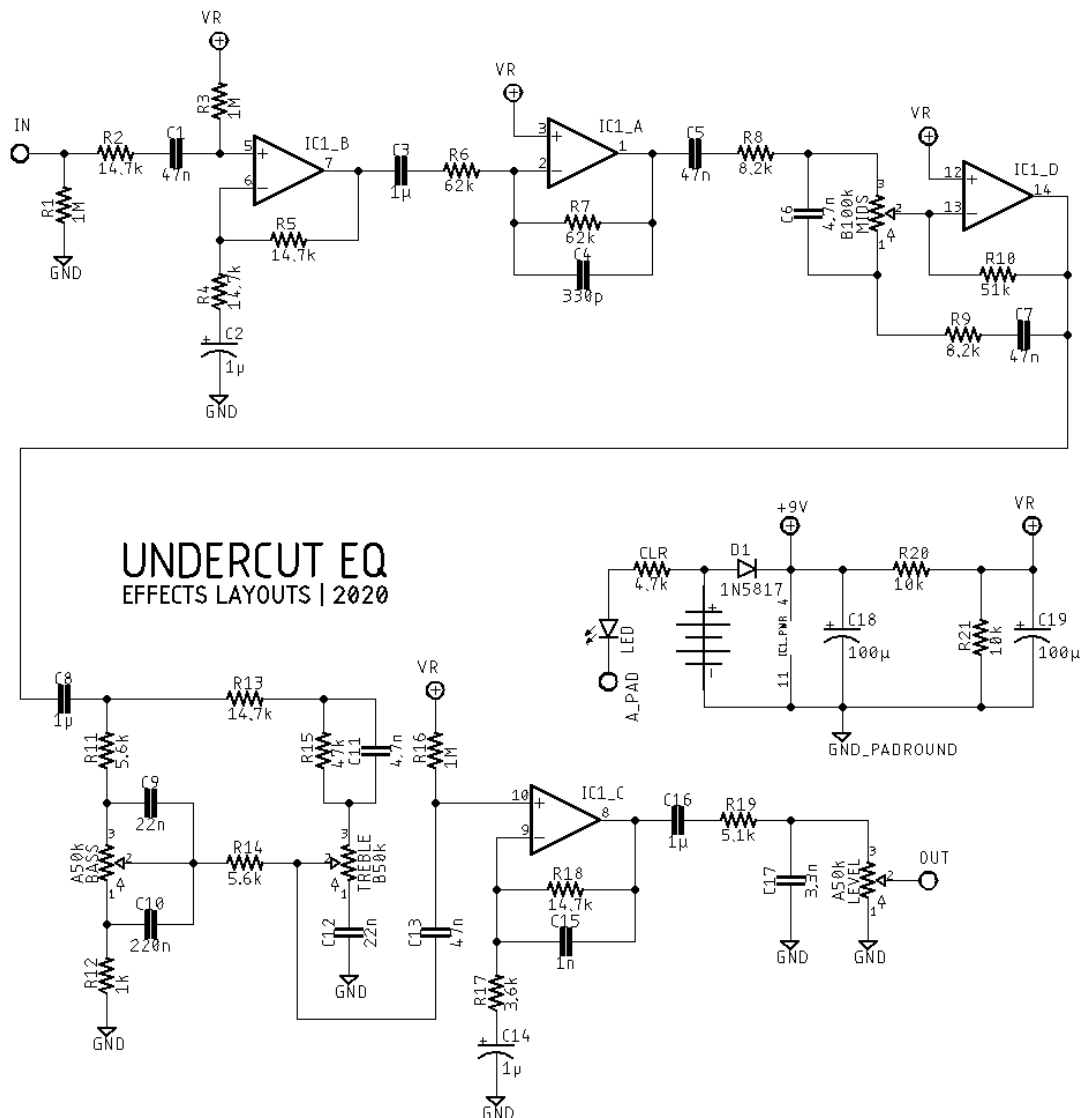


UNDERCUT

DESCRIPTION

The UNDERCUT is handy 3-band EQ with minimal gain/volume (unity is with the level pot just about maxed) and is what the kids these days are calling an underdrive. It helps to clean up an overly dirty amp or drive/distortion/fuzz pedal. It gives you the option to quickly reduce your signal's gain with the click of a footswitch instead of having to bend over and tweak a knob, and the 3-band EQ offers a wide range of control. Based on the Mad Professor Evolution Orange Underdrive.

SCHEMATIC



BOM

Resistors

R1	1M
R2	14.7k
R3	1M
R4	14.7k
R5	14.7k
R6	62k
R7	62k
R8	8.2k
R9	8.2k
R10	51k
R11	5.6k
R12	1k
R13	14.7k
R14	5.6k
R15	47k
R16	1M
R17	3.6k
R18	14.7k
R19	5.1k
R20	10k
R21	10k
CLR	4.7k

Capacitors

C1	47n
C2	1μ
C3	1μ
C4	330p
C5	47n
C6	4.7n
C7	47n
C8	1μ

C9	22n
C10	220n
C11	4.7n
C12	22n
C13	47n
C14	1μ
C15	1n
C16	1μ
C17	3.3n
C18	100μ
C19	100μ

Semiconductors

D1	1N5817
IC1	TL074
LED	3 or 5mm

Electromechanical

Bass	A50k
Level	A50k
Mid	B100k
Treble	B50k

Notes

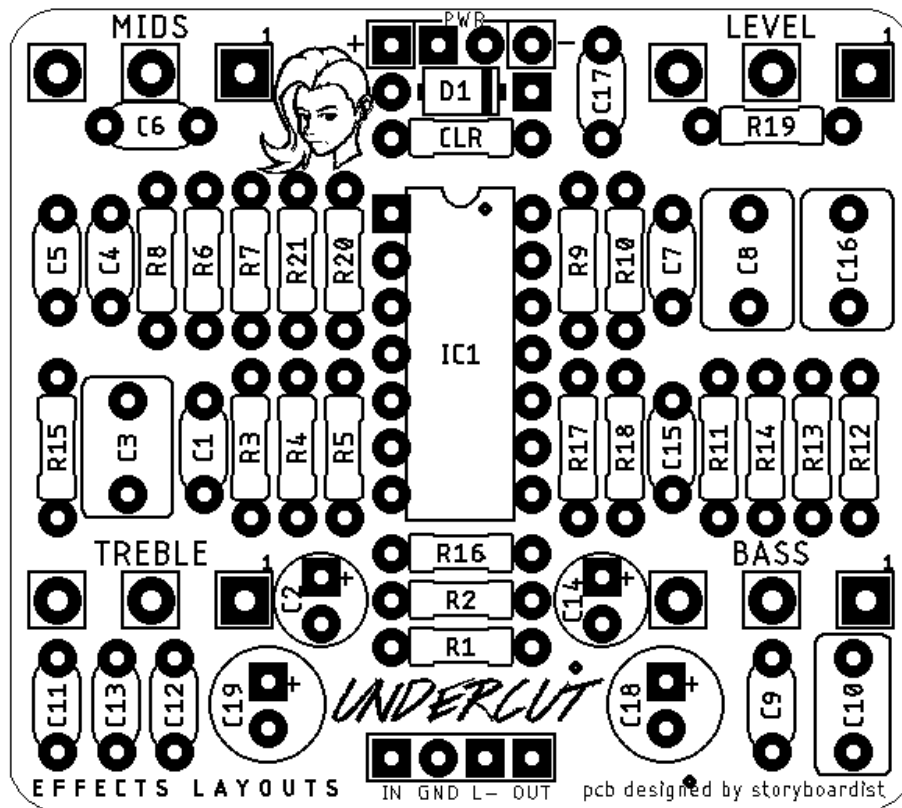
There are some resistor values in this circuit you may not have on hand. The circuit seems pretty flexible and you can use other values that are relatively close to what's prescribed (3.3k for 3.6k, 15k for 14.7k, 47k for 51k, 56k for 62k). Stacking resistors to create parallel resistance is also an option.

SHOPPING LIST

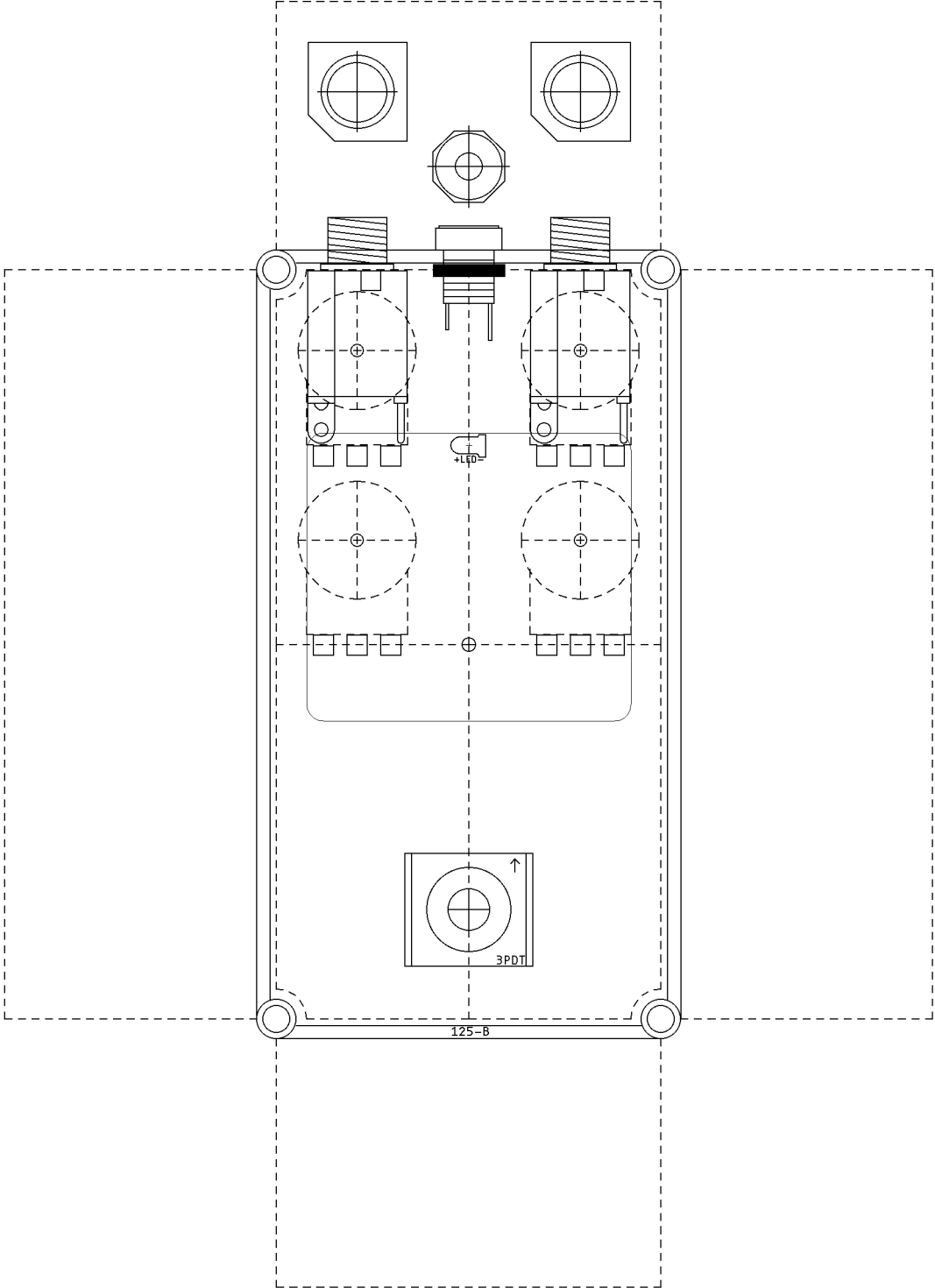
Part	Type (suggested)	Quantity
1k	¼ watt metal or carbon film	1
3.6k	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	1
5.1k	¼ watt metal or carbon film	1
5.6k	¼ watt metal or carbon film	2
8.2k	¼ watt metal or carbon film	2
10k	¼ watt metal or carbon film	2

14.7k	¼ watt metal or carbon film	5
47k	¼ watt metal or carbon film	1
51k	¼ watt metal or carbon film	1
62k	¼ watt metal or carbon film	2
1M	¼ watt metal or carbon film	3
330p	Ceramic	1
1n	Film	1
3.3n	Film	1
4.7k	Film	2
22n	Film	2
47n	Film	4
220n	Film	1
1µ	Film	3
1µ	Electrolytic	2
100µ	Electrolytic (35+)	2
1N5817	Schottky Rectifier diode	1
LED	3 or 5mm	1
TL074	Quad opamp	1
A50k	16mm right angle PC mount	2
B50k	16mm right angle PC mount	1
B100k	16mm right angle PC mount	1

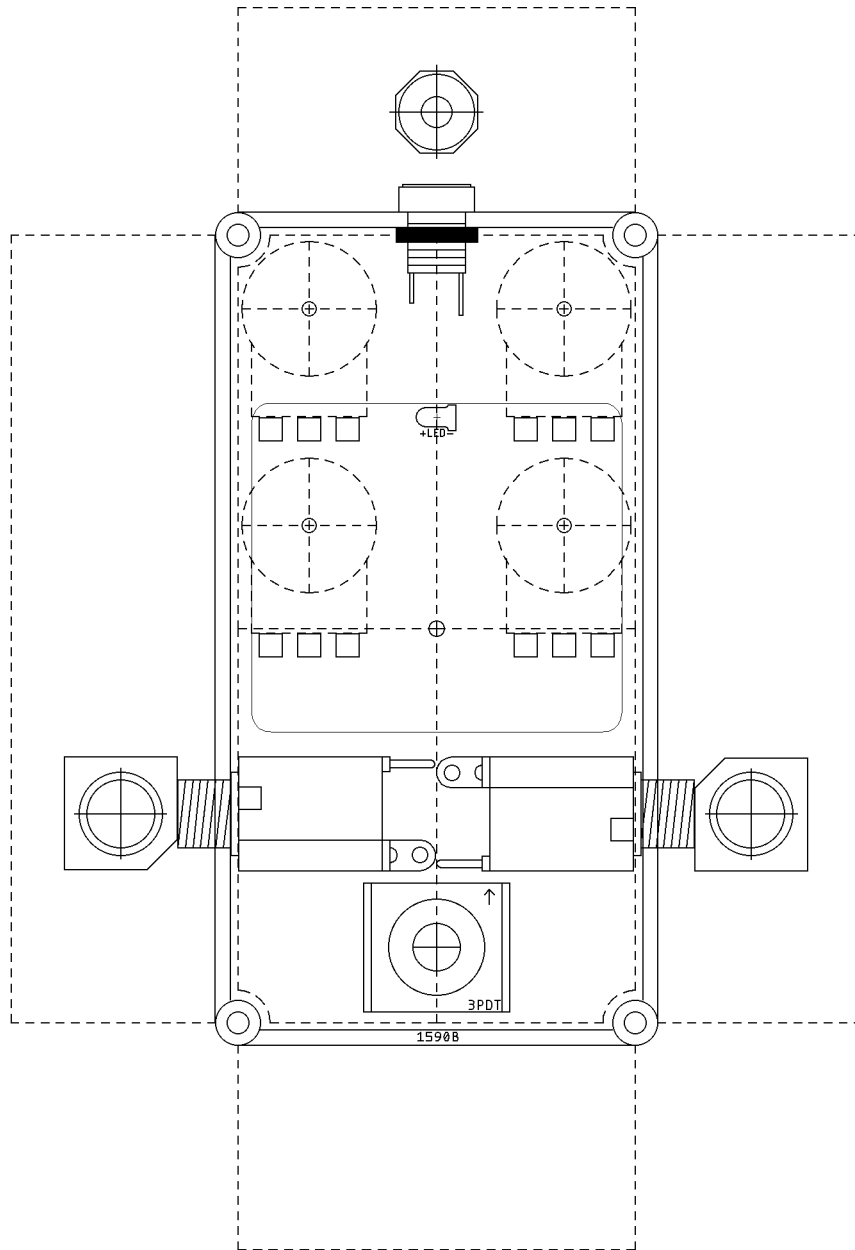
LAYOUT



DRILL TEMPLATE (125B)



DRILL TEMPLATE (1590B)



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