

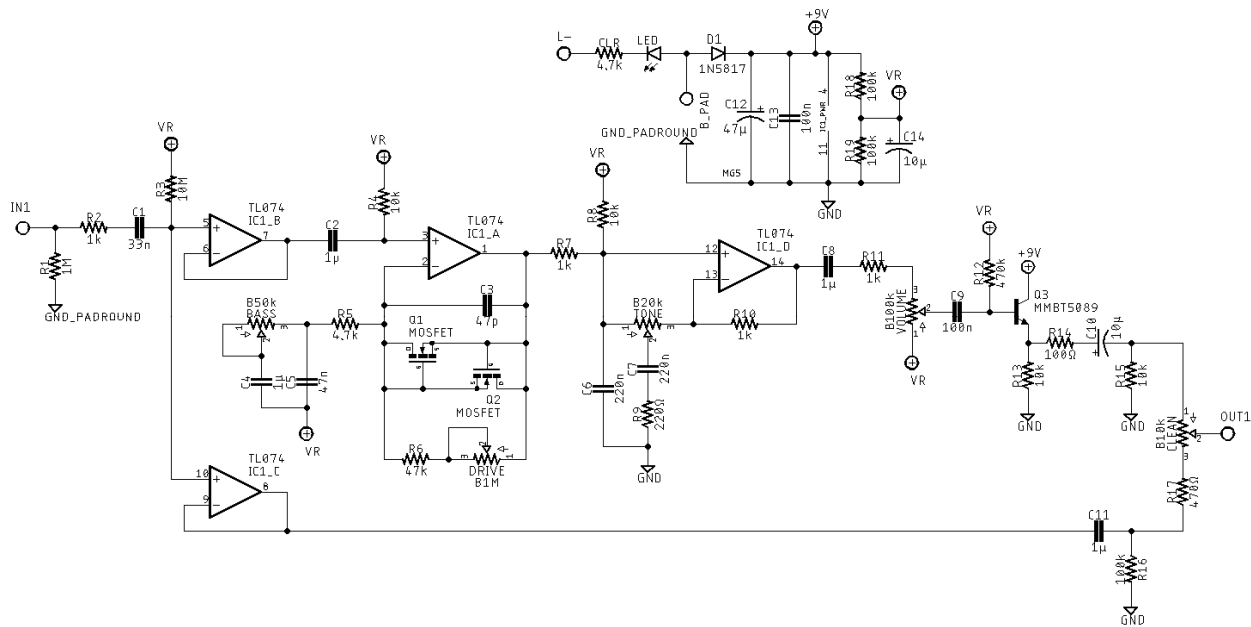
RED CLAY

OVERDRIVE

DESCRIPTION

The RED CLAY OVERDRIVE is a variant of the classic Ibanez TS808 Tube Screamer I initially designed for one side of the BREAK ACTION dual drive. This version is mostly surface mounted components, with through hole pads for the electrolytic caps, indicator LED, polarity protection diode and of course the pots. The clean blend makes it great for guitar or bass.

SCHEMATIC



BOM

Resistors

R1	1M
R2	1k
R3	10M
R4	10k
R5	4.7k
R6	47k
R7	1k
R8	10k
R9	220Ω
R10	1k
R11	1k
R12	470k
R13	10k
R14	100Ω
R15	10k
R16	100k
R17	470Ω
R18	100k
R19	100k
CLR	4.7k

Capacitors

C1	33n
C2	1μ
C3	47p
C4	1μ
C5	47n

C6	220n
C7	220n
C8	1μ
C9	100n
C10	10μ
C11	1μ
C12	47μ
C13	100n
C14	10μ

Semiconductors

D1	1N5817
IC1	TL074
LED	3 or 5mm
Q1	2N7002
Q2	2N7002
Q3	MMBT5089

Electromechanical

Bass	B50k
Clean	B10k
Drive	B1M
Tone	B20k
Volume	B100k

Note:

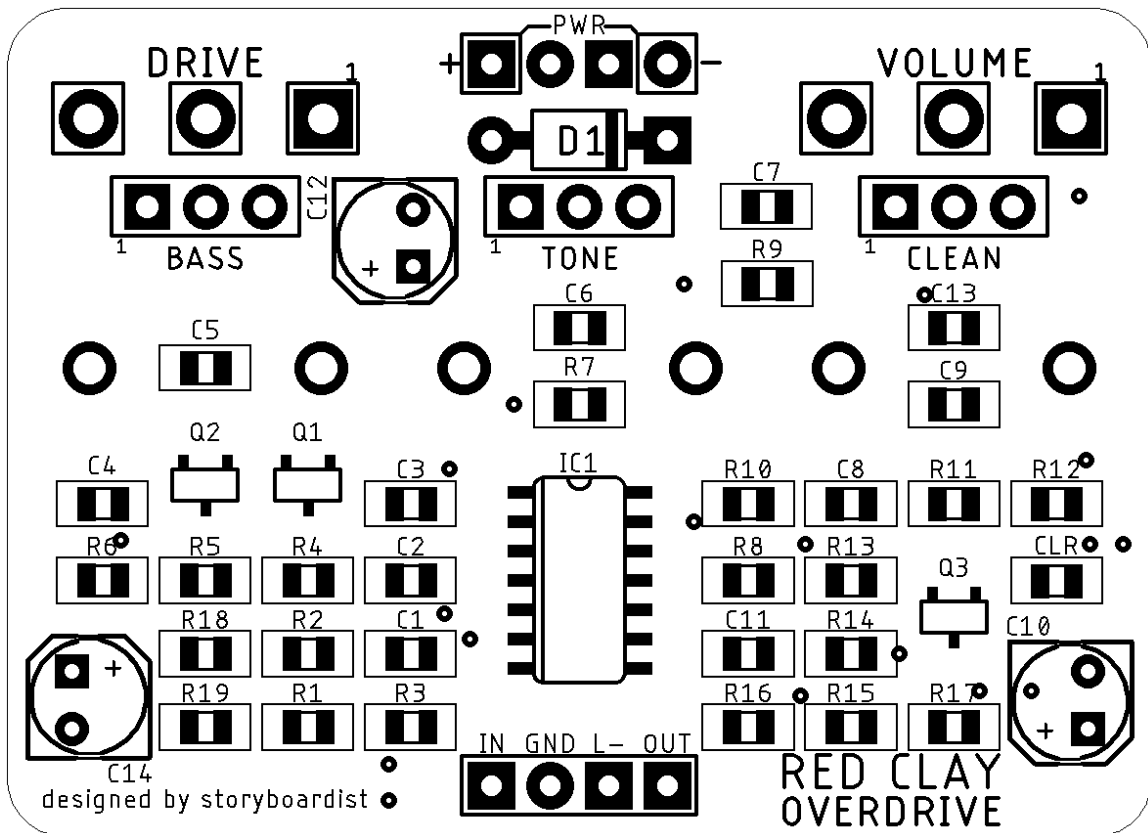
Bass, Clean, and Tone pots are 9mm, while Drive and Volume are 16mm. All parts are 0805 size, but 0603 will also fit.

SHOPPING LIST

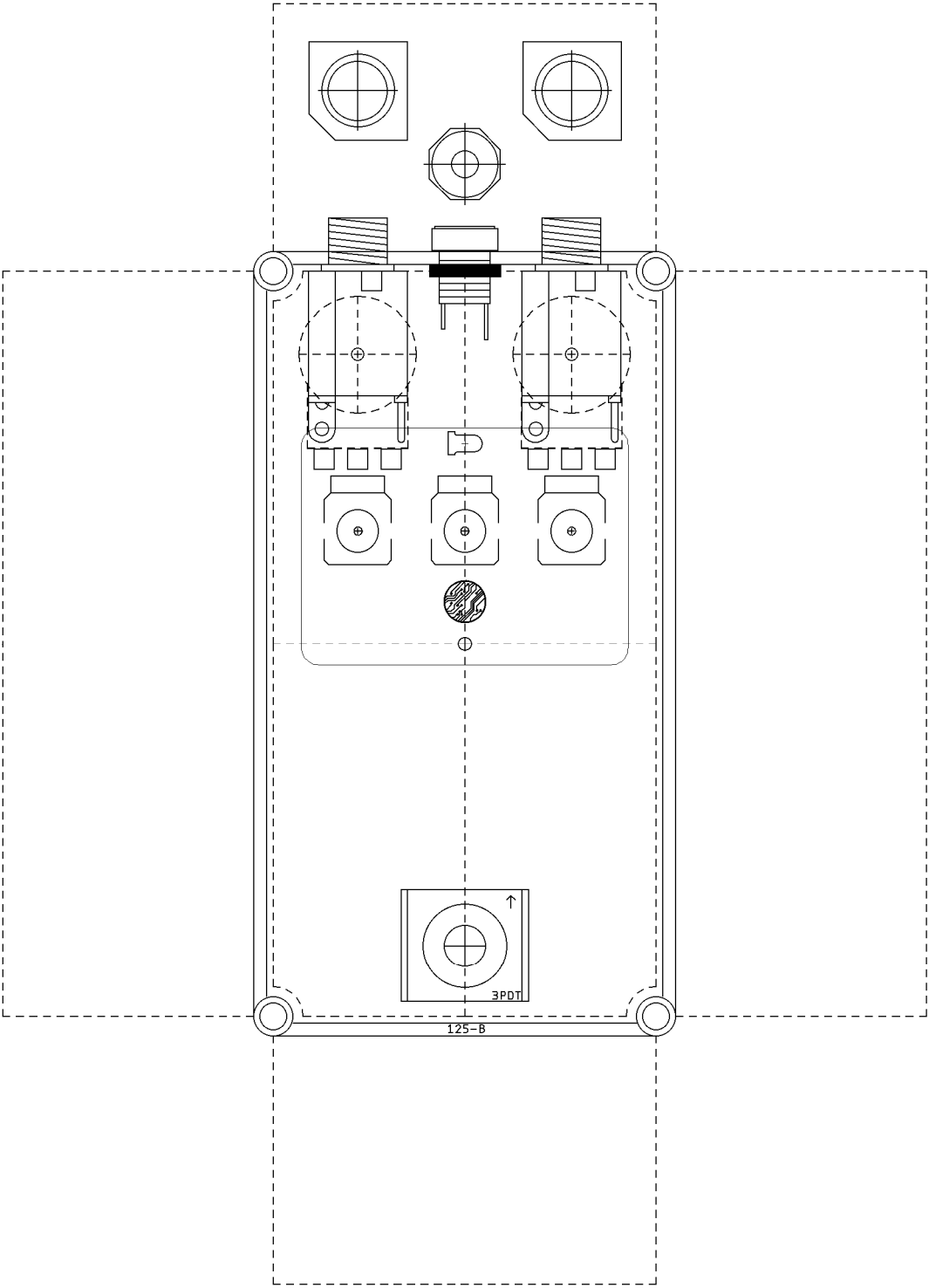
Value	Type (suggested)	Quantity
100Ω	0805 resistor	1
220Ω	0805 resistor	1
470Ω	0805 resistor	1
1k	0805 resistor	4
4.7k	0805 resistor	2
10k	0805 resistor	4
47k	0805 resistor	1
100k	0805 resistor	3
470k	0805 resistor	1
1M	0805 resistor	1
10M	0805 resistor	1

47p	0805 capacitor	1
33n	0805 capacitor	1
47n	0805 capacitor	1
100n	0805 capacitor	2
220n	0805 capacitor	2
1μ	0805 capacitor	4
10μ	SMD or thru-hole electrolytic	2
47μ	SMD or thru-hole electrolytic	1
1N5817	Schotky rectifier diode	1
2N7002	SMD MOSFET	2
LED	3 or 5mm	1
MMBT5089	SMD BJT	1
TL074	SMD quad op amp	1
B1M	16mm right angle PC mount	1
B10k	9mm PC mount	1
B20k	9mm PC mount	1
B50k	9mm PC mount	1
B100k	16mm right angle PC mount	1

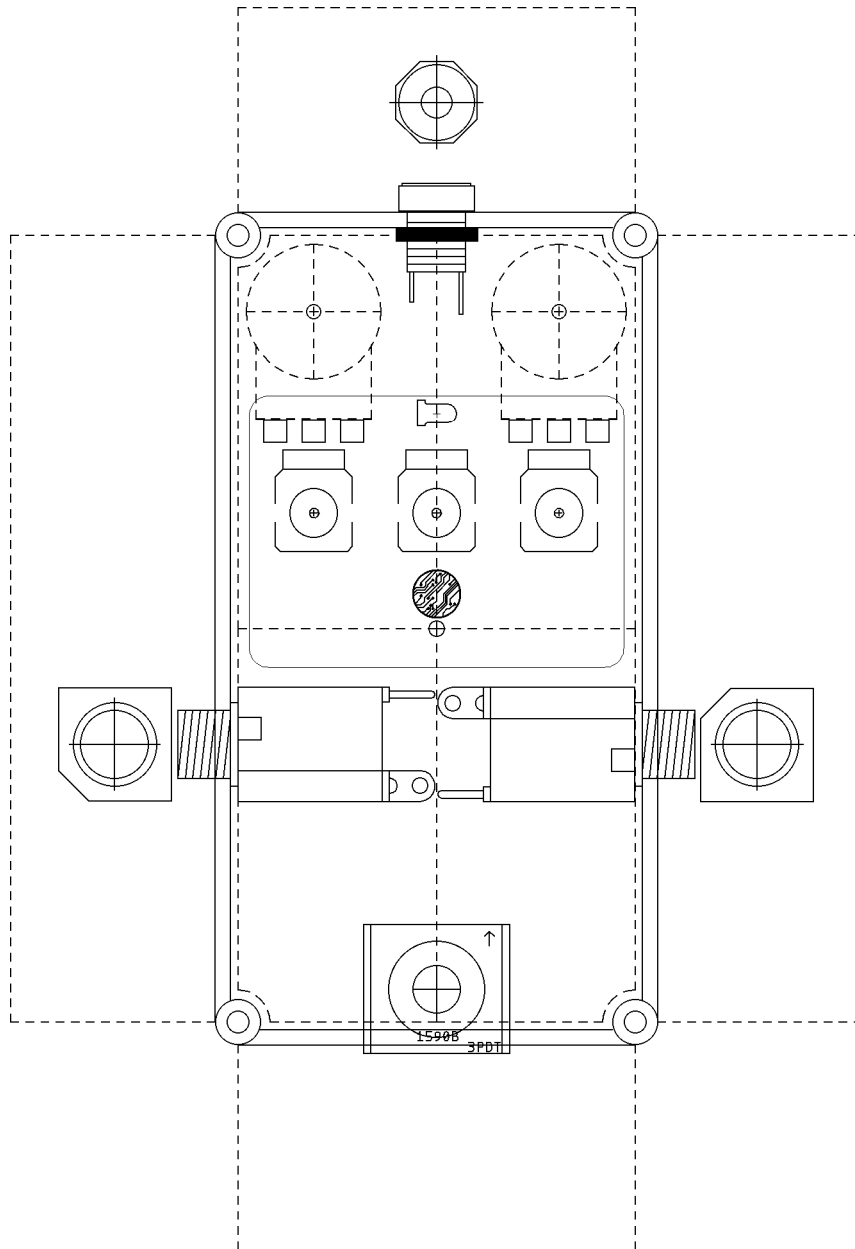
LAYOUT



DRILL TEMPLATE (125B)



DRILL TEMPLATE (1590B)



EFFECTS LAYOUTS © 2020
For DIY and small commercial applications.
Not for non-peer to peer resale.