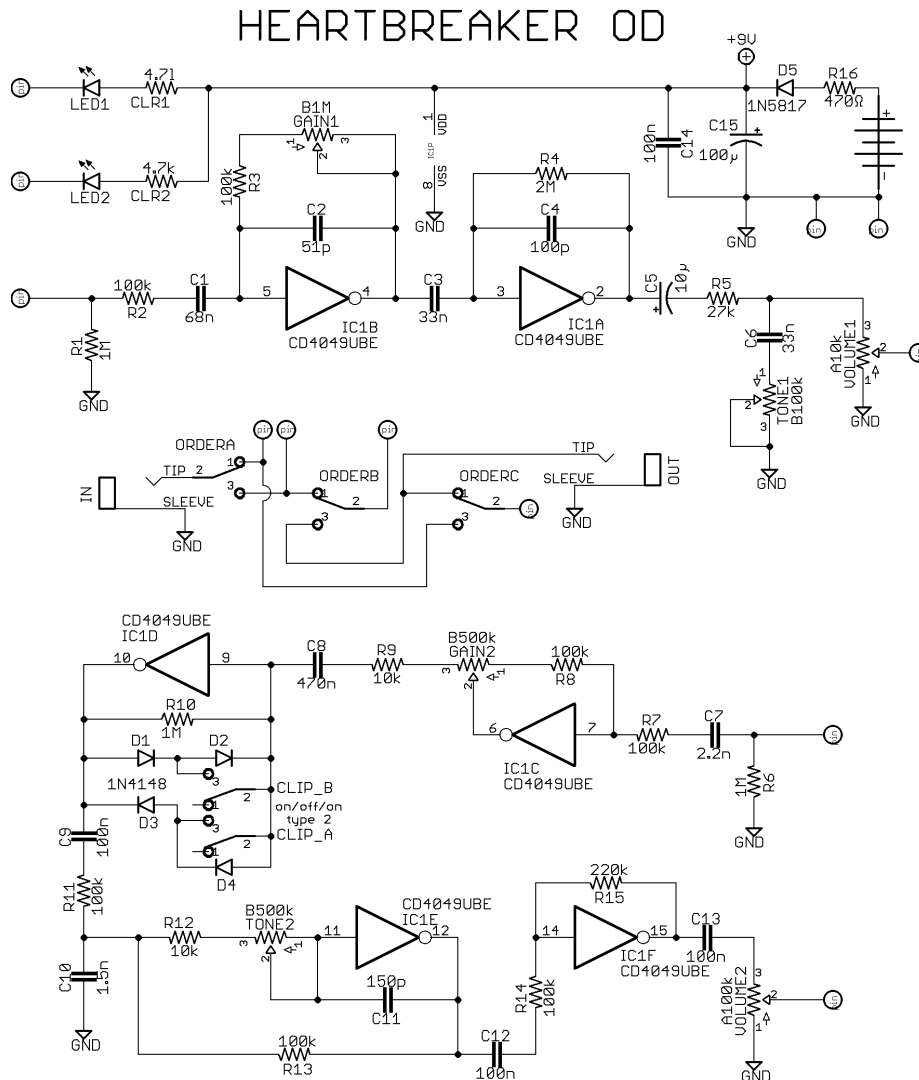


Heartbreaker II

DESCRIPTION

The HEARTBREAKER OVERDRIVE came about from wondering what to do with the extra hex inverters in a CD4049 in a Way Huge® Red Llama™. Then I remembered that half the Way Huge® Camel Toe™ is a Red Llama™, so I figured I'd use the other 4 inverters to emulate a Tube Screamer. Run Off Groove has a CD4049-based Tube Screamer project, which I used as a starting point to create the HEARTBREAKER—a half Llama, half Screamer(ish) dual overdrive. The name comes from Mike Campbell often using a Camel Toe™ and being a Tom Petty and the Heartbreakers fan, it seems like a good fit. The MKII came about from wanting it to fit in a 125B with the normal enclosure orientation and I took the opportunity to update the Llama side to the current version with the Tone Cut pot and I added the order switch.

SCHEMATIC



BOM

Resistors

R1	1M
R2	100k
R3	100k
R4	2M
R5	27k
R6	1M
R7	100k
R8	100k
R9	10k
R10	1M
R11	100k
R12	10k
R13	100k
R14	100k
R15	220k
R16	470Ω
CLR1	4.7k
CLR2	4.7k

Capacitors

C1	68n
C2	51p
C3	33n
C4	100p
C5	10μ
C6	33n
C7	2.2n

C8	470n
C9	100n
C10	1.5n
C11	150p
C12	100n
C13	100n
C14	100n
C15	100μ

Semiconductors

D1	1N4148
D2	1N4148
D3	1N4148
D4	1N4148
D5	1N5817
IC1	CD4049UBE
LED1	3 or 5mm
LED2	3 or 5mm

Electromechanical

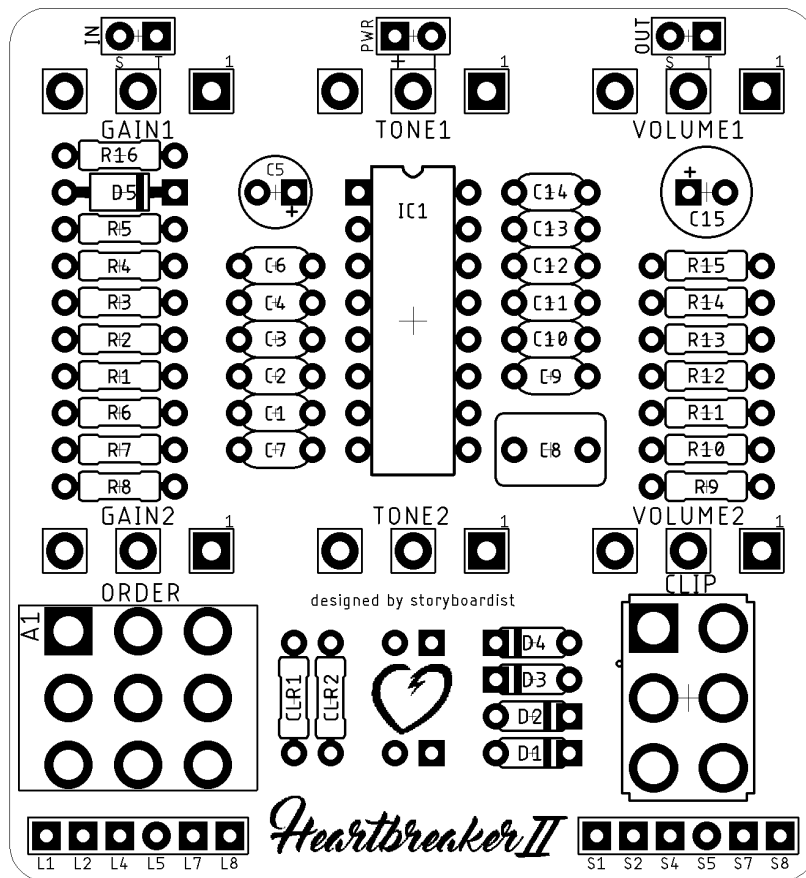
Clip	DPDT on/off/on
Gain 1	B1M
Gain 2	B500k
Order	3PDT toggle on/on
Tone 1	B100k
Tone 2	B500k
Volume 1	A10k
Volume 2	A100k

SHOPPING LIST

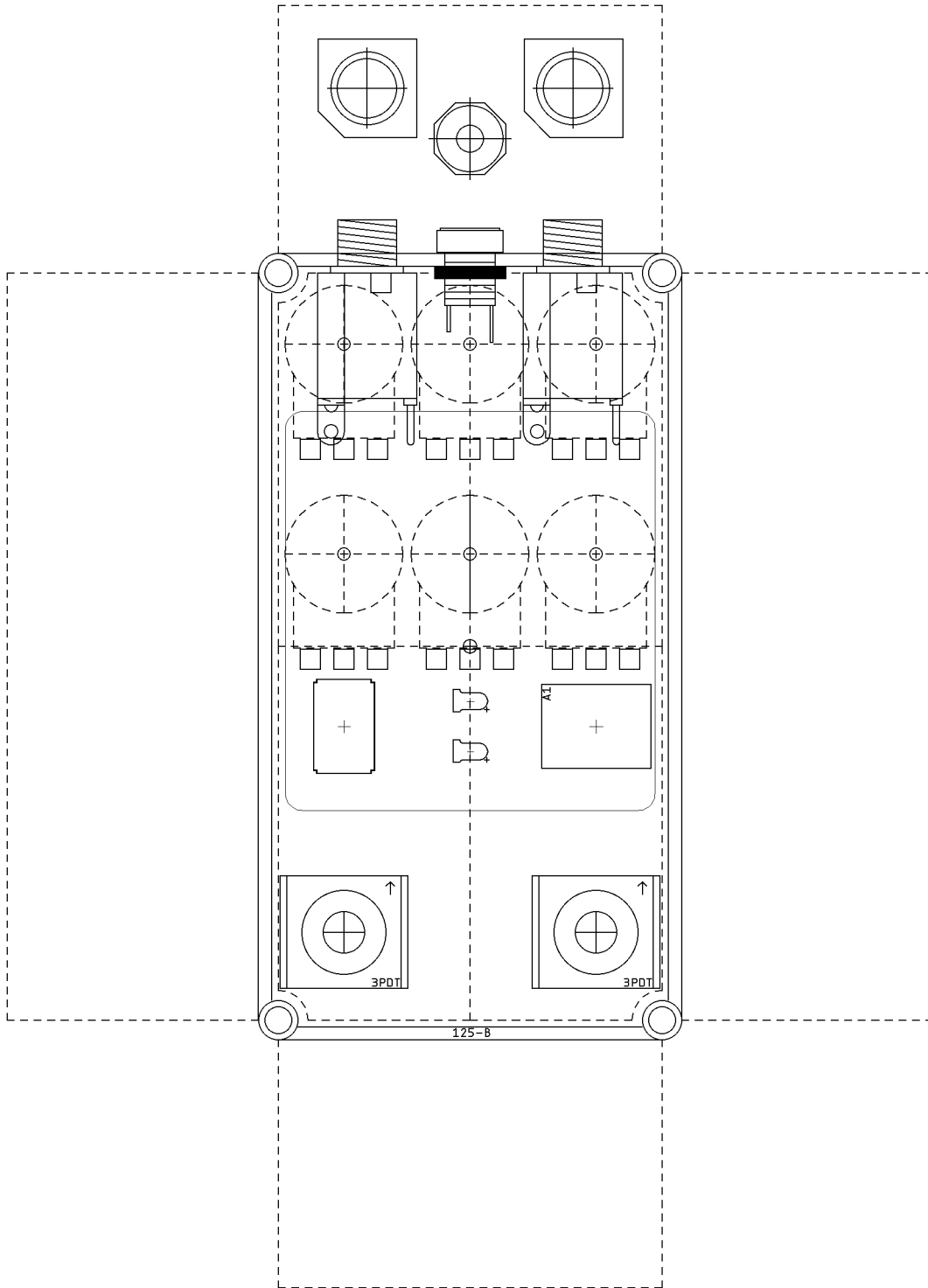
Value	Type (suggested)	Quantity
470Ω	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	2
10k	¼ watt metal or carbon film	2
27k	¼ watt metal or carbon film	1
100k	¼ watt metal or carbon film	7
220k	¼ watt metal or carbon film	1
1M	¼ watt metal or carbon film	3
2M	¼ watt metal or carbon film	1
51p	Ceramic	1
100p	Ceramic	1
150p	Ceramic	1
1.5n	Film	1

2.2n	Film	1
33n	Film	2
68n	Film	1
100n	Film	4
470n	Film	1
100μ	Electrolytic (35v+)	1
1N4148	Silicon switching diode	4
1N5817	Schottky rectifier diode	1
CD4049UBE	Unbuffered hex inverter	1
LED	3 or 5mm	2
3PDT	Toggle on/on	1
DPDT	Toggle on/off/on	1
A10k	16mm right angle PC mount	1
A100k	16mm right angle PC mount	1
B1M	16mm right angle PC mount	1
B100k	16mm right angle PC mount	1
B500k	16mm right angle PC mount	2

LAYOUT



DRILL TEMPLATE (125B)



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