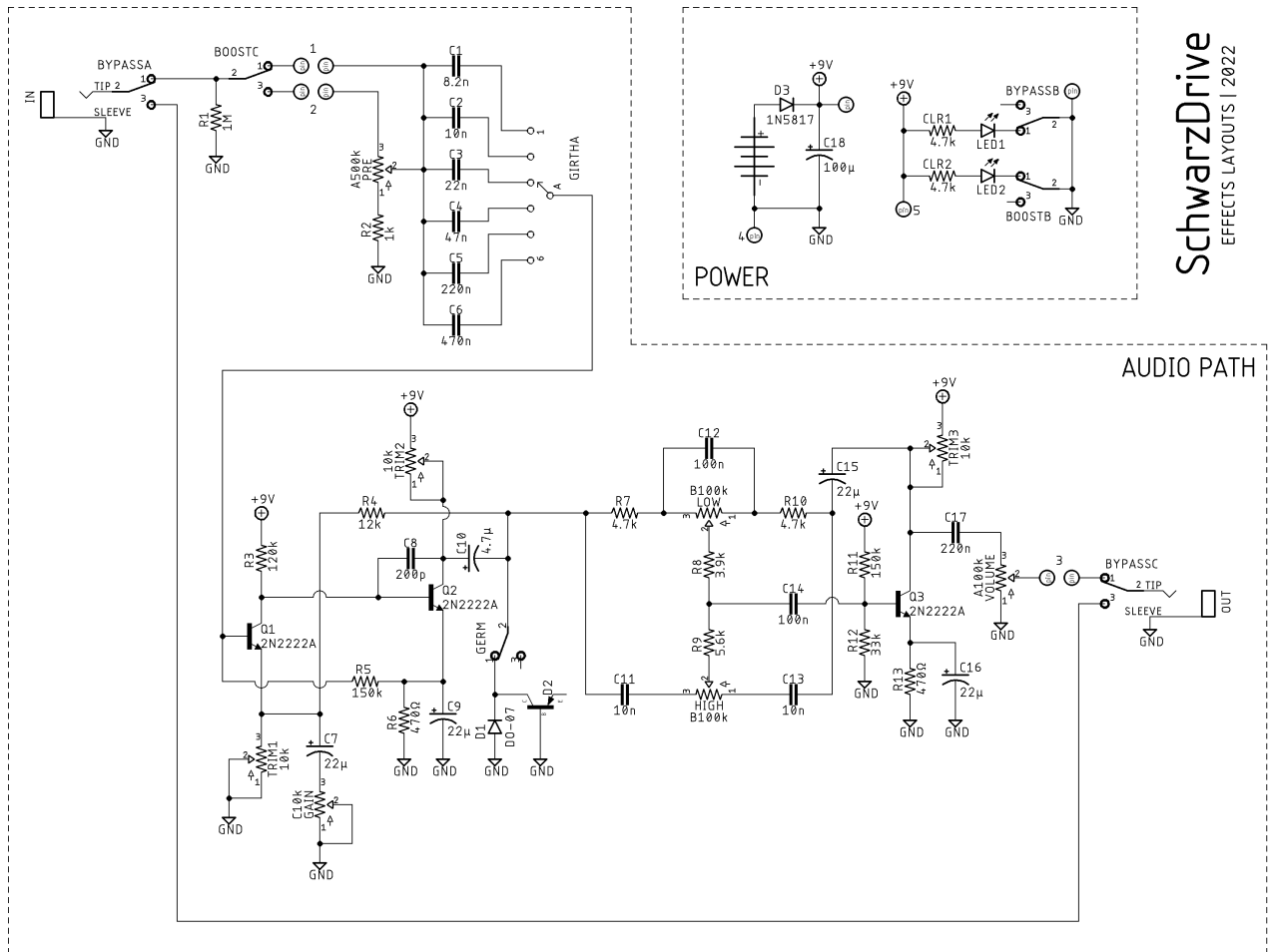


SchwarzDrive

DESCRIPTION

The SCHWARZDRIVE is inspired by the classic Colorsound Overdriver, and a bit of a mashup of the Black Arts Toneworks Black Forest and the Throbak Overdrive Boost. The boost footswitch bypasses the Pre pot to give the circuit the full input signal, the Girth rotary switch selects the input cap, and the Germ switch adds some germanium clipping before the tone section. This will fit in a 1590BB enclosure, though top mounted jacks might be a bit of a squeeze, so I've included a 125BB drill template as well.

SCHEMATIC



BOM

Resistors

R1	1M
R2	1k
R3	120k
R4	12k
R5	150k
R6	470Ω
R7	4.7k
R8	3.9k
R9	5.6k
R10	4.7k
R11	150k
R12	33k
R13	470Ω
CLR1	4.7k
CLR2	4.7k

Capacitors

C1	8.2n
C2	10n
C3	22n
C4	47n
C5	220n
C6	470n
C7	22μ
C8	200p
C9	22μ
C10	4.7μ
C11	10n
C12	100n
C13	10n
C14	100n
C15	22μ
C16	22μ
C17	220n

C18	100μ
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Semiconductors

D1	1N34A
D2	PNP germanium BJT
D3	1N5817
LED1	3 or 5mm
LED2	3 or 5mm
Q1	2N2222A
Q2	2N2222A
Q3	2N2222A

Electromechanical

Boost	3PDT footswitch
Bypass	3PDT footswitch
Gain	C10k
Germ	SPDT on/on
GIRTH	2P6T
High	B100k
Low	B100k
Pre	A500k
Trim1	10k
Trim2	10k
Trim3	10k
Volume	A100k

Notes

Here are the voltages I got in my prototype build. Yours do not have to match exactly but should be helpful in biasing Q1-3. YMMV

Q1—C: 1.34v B: 0.62v E: 0.05v

Q2—C: 6.45v B: 2.32v E: 0.68v

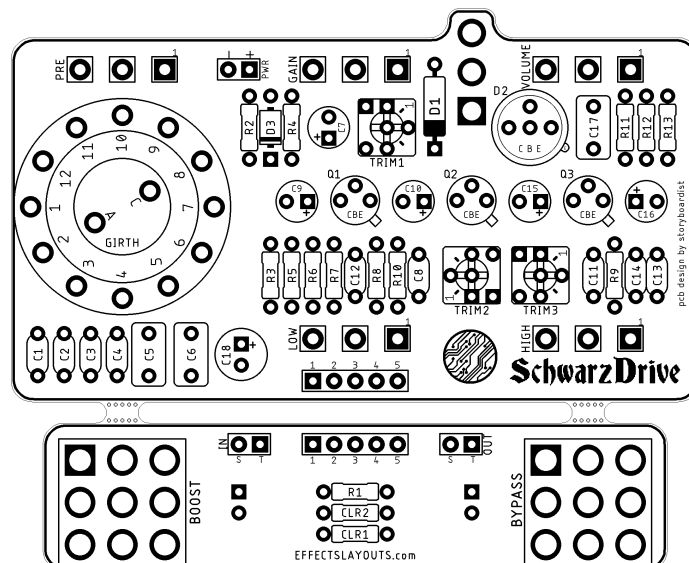
Q3—C: 4.68v B: 1.37v E: 0.72v

SHOPPING LIST

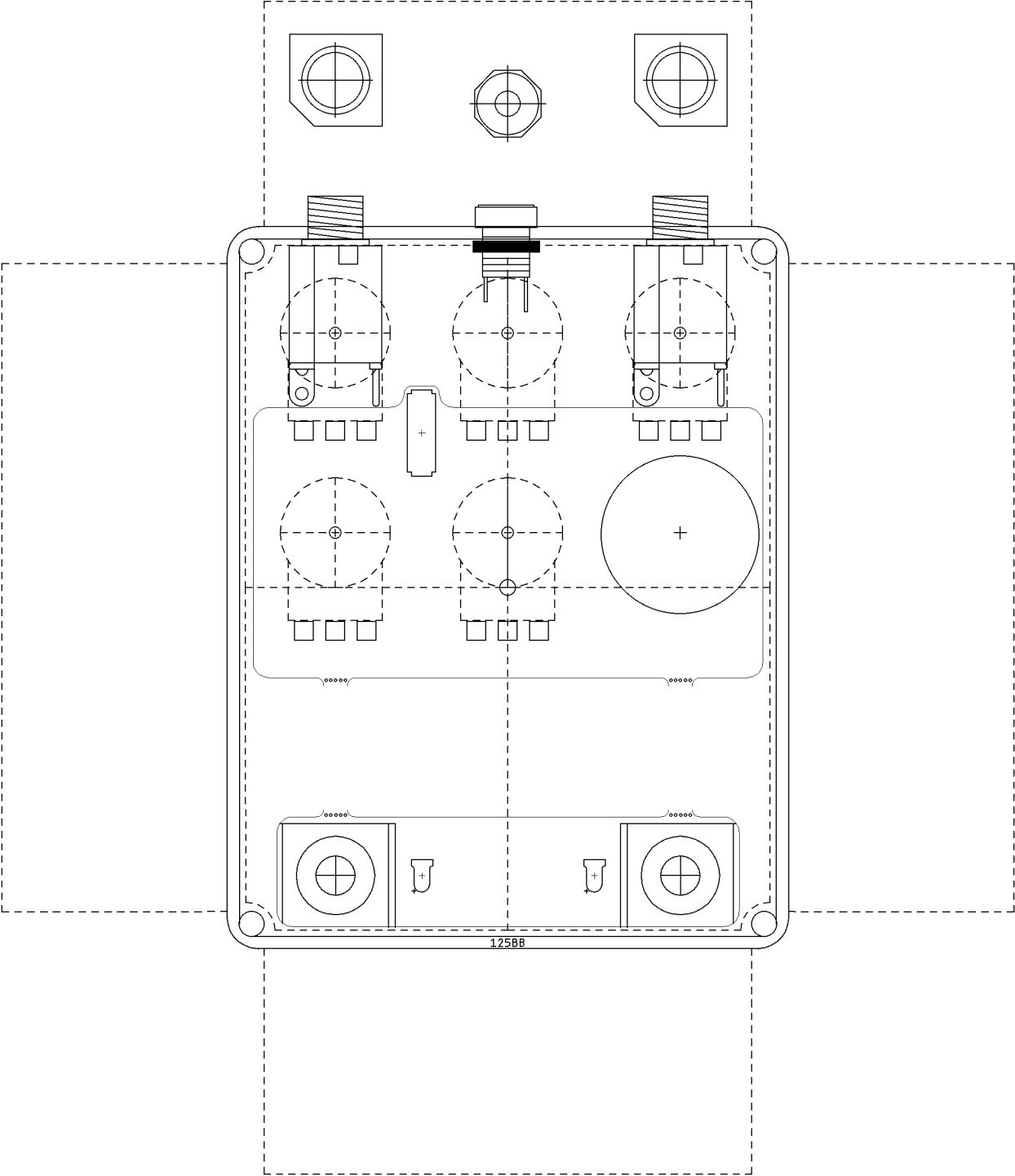
Part	Type (suggested)	Quantity
470Ω	¼ watt metal or carbon film	2
1k	¼ watt metal or carbon film	1
3.9k	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	4
5.6k	¼ watt metal or carbon film	1

12k	¼ watt metal or carbon film	1
33k	¼ watt metal or carbon film	1
120k	¼ watt metal or carbon film	1
150k	¼ watt metal or carbon film	2
1M	¼ watt metal or carbon film	1
200p	Ceramic	1
8.2n	Film	1
10n	Film	2
22n	Film	1
47n	Film	1
100n	Film	2
220n	Film	3
470n	Film	1
4.7µ	Electrolytic (25v+)	1
22µ	Electrolytic (25v+)	4
100µ	Electrolytic (25v+)	1
1N34A	Germanium diode	1
1N5817	Rectifier diode	1
2N2222A	BJT	3
LED	3 or 5mm	2
PNP	Germanium PNP BJT	1
10k	Trim potentiometer	3
2P6T	PC mount rotary switch	1
3PDT	Footswitch	2
A100k	16mm right angle PC mount	1
A500k	16mm right angle PC mount	1
B100k	16mm right angle PC mount	2
C10k	16mm right angle PC mount	1
SPDT	On/on toggle	1

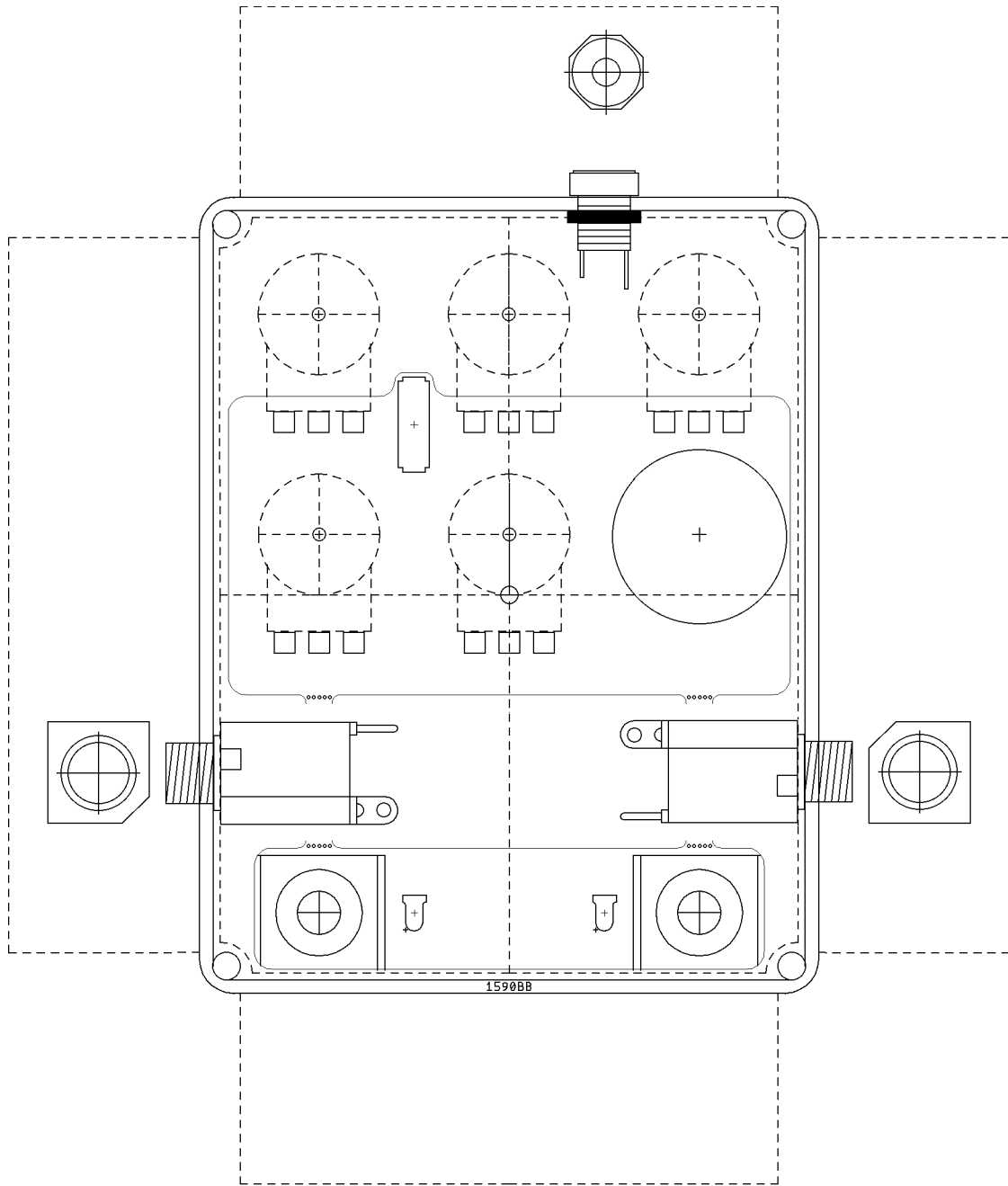
LAYOUT



DRILL TEMPLATE (125BB)



DRILL TEMPLATE (1590BB)



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