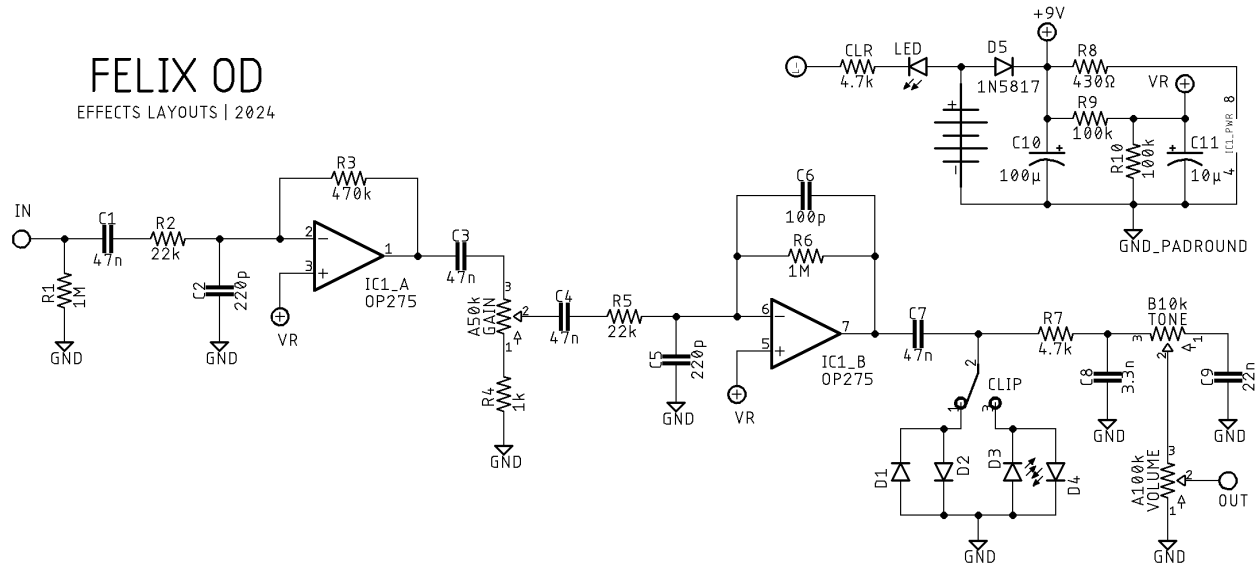




## DESCRIPTION

The FELIX OD is a take on the Black Cat OD-1 adding a tone control and clipping options. However, if you're just after the original, you can build the unmodified circuit on this board as well.

## SCHEMATIC



## BOM

### Resistors

R1	1M
R2	22k
R3	470k
R4	1k
R5	22k
R6	1M
R7	4.7k
R8	430Ω
R9	100k
R10	100k
CLR	4.7k

### Capacitors

C1	47n
C2	220p
C3	47n
C4	47n
C5	220p
C6	100p
C7	47n
C8	3.3n
C9	22n
C10	100μ
C11	10μ

## Semiconductors

D1	1N4148
D2	1N4148
D3	3mm red LED
D4	3mm red LED
D5	1N5817
IC1	OP275
LED	3 or 5mm

## Electromechanical

CLIP	SPDT
GAIN	A50k
TONE	B10k
VOLUME	A100k

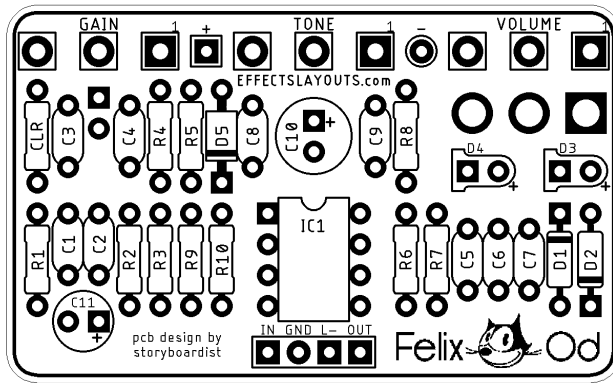
## Note

To build to original specs, omit C8-9, D1-4 along with the SPDT switch, jump R4 and pads 2-3 of the Tone pot. If building to modded specs, experiment with different clipping diodes, ICs, and cap values.

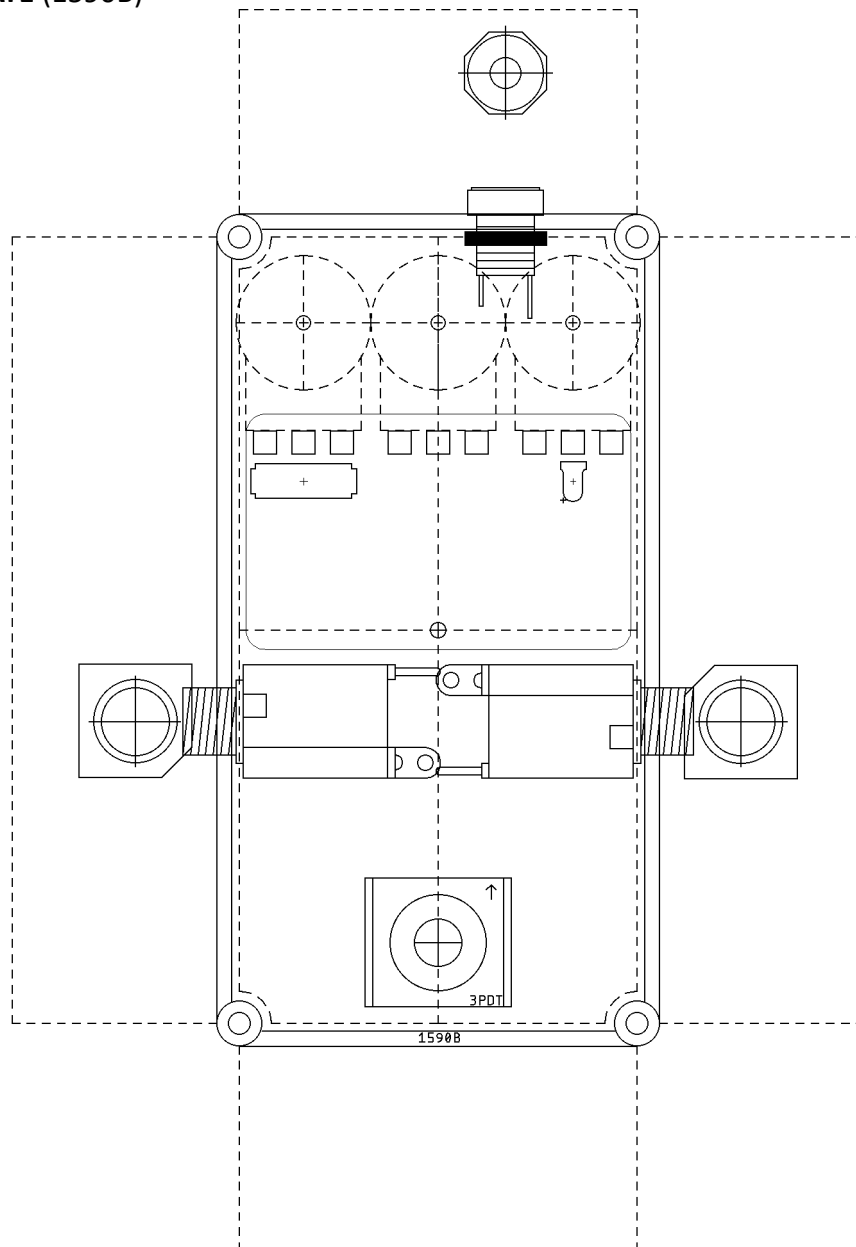
## SHOPPING LIST

Part	Type (suggested)	Quantity
430Ω	¼ watt metal or carbon film	1
1k	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	2
22k	¼ watt metal or carbon film	2
100k	¼ watt metal or carbon film	2
470k	¼ watt metal or carbon film	1
1M	¼ watt metal or carbon film	2
100p	Ceramic	1
220p	Ceramic	2
3.3n	Film	1
22n	Film	1
47n	Film	4
10μ	Electrolytic (25v+)	1
100μ	Electrolytic (25v+)	1
1N4148	Silicon switching diode	2
1N5817	Schottky rectifier diode	1
LED	3mm red	2
OP275	Dual op amp	1
SPDT	Toggle switch	1
A50k	16mm right angle PC mount potentiometer	1
A100k	16mm right angle PC mount potentiometer	1
B10k	16mm right angle PC mount potentiometer	1

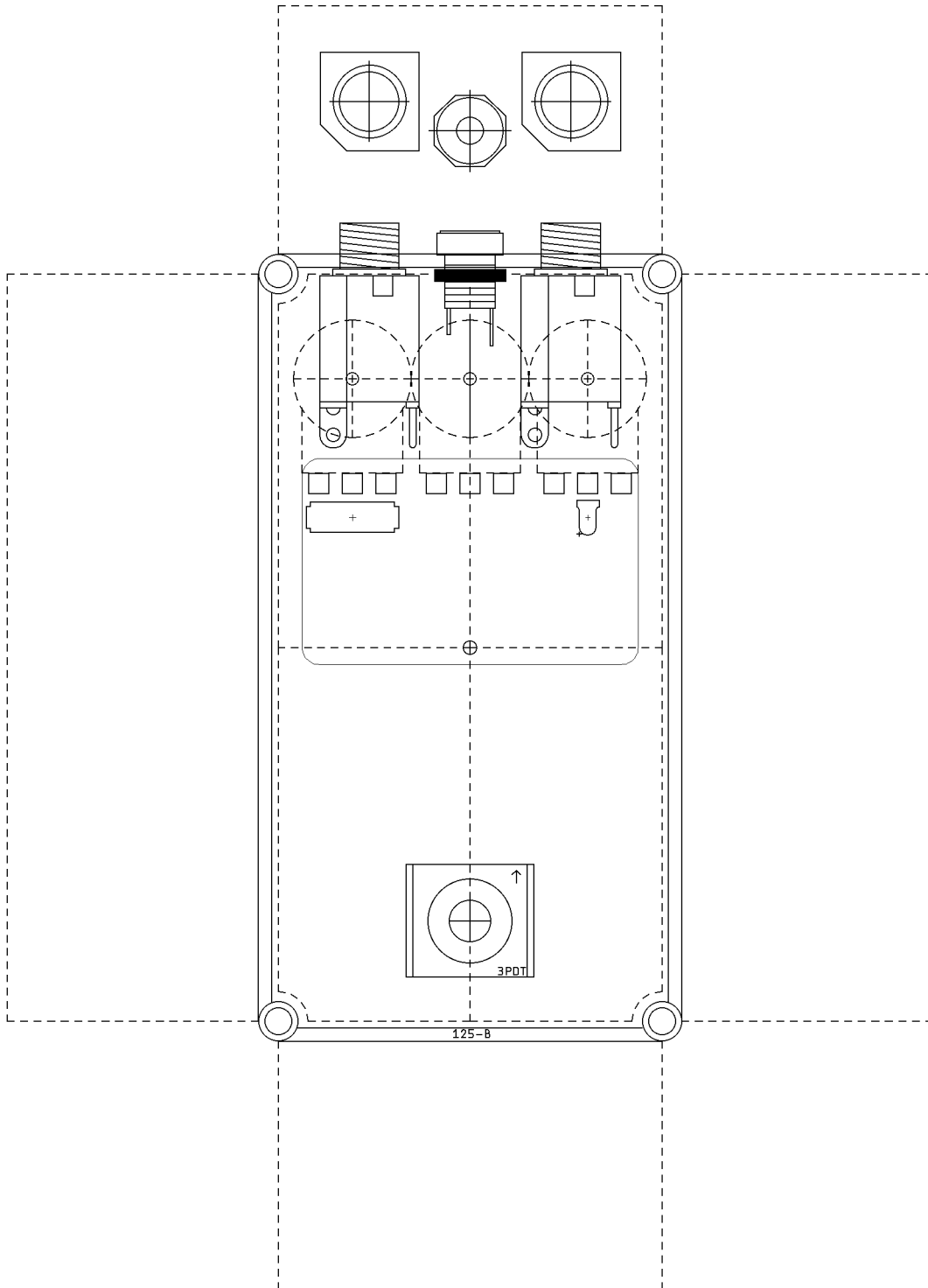
# LAYOUT



# DRILL TEMPLATE (1590B)



# DRILL TEMPLATE (125B)



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