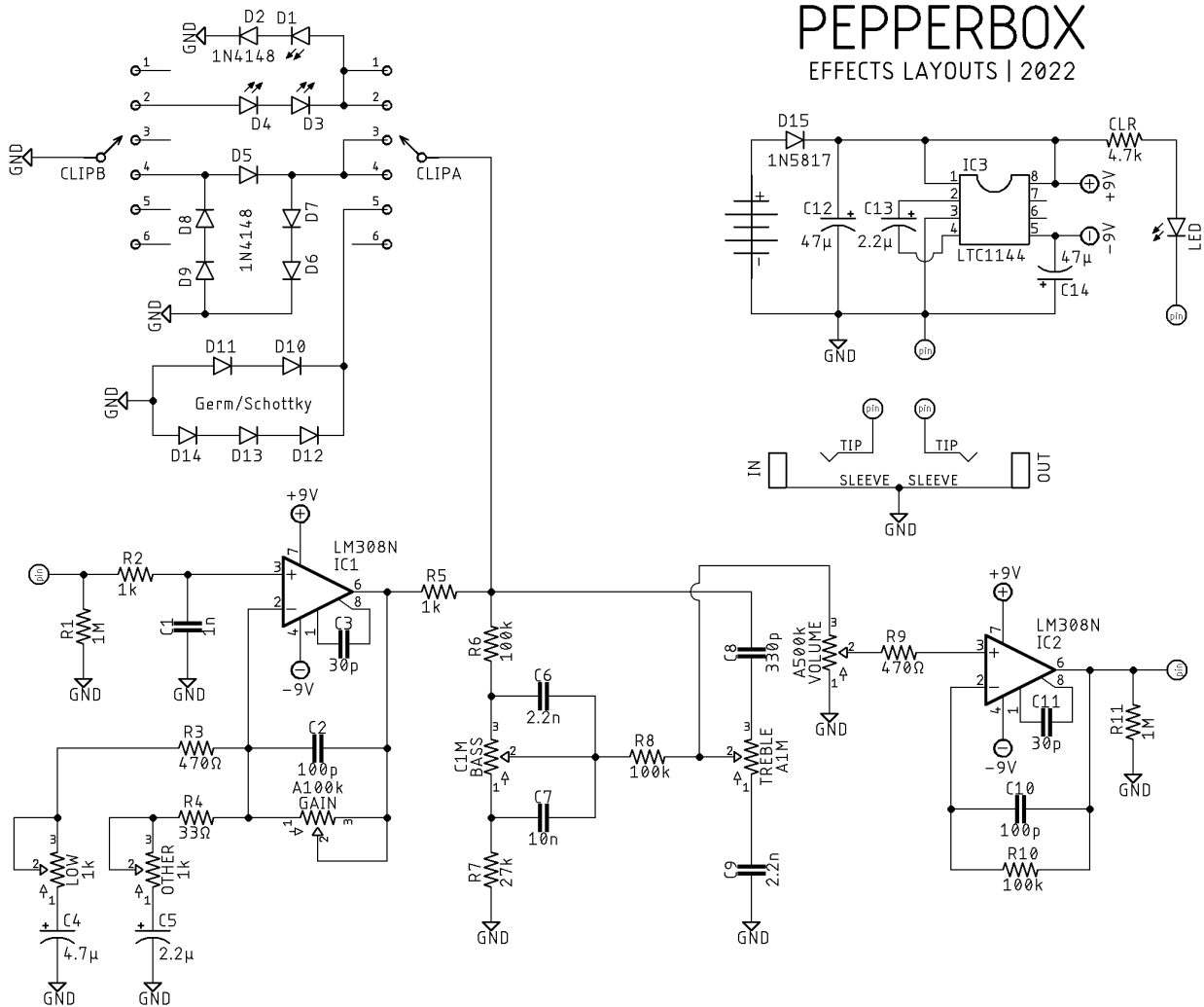


# PEPPERBOX

## DESCRIPTION

The PEPPERBOX is based on the now discontinued Dunwich Amplification Volt Thrower. It's essentially a RAT with a bi-polar power supply, a load of clipping options, two-band EQ, and gain recovery stage built around another LM308. It's designed specifically for bass use, but like so many bass specific circuits, it sounds fantastic on guitar as well.

## SCHEMATIC



## PEPPERBOX EFFECTS LAYOUTS | 2022

## BOM

### Resistors

R1	1M
R2	1k
R3	470Ω
R4	33Ω
R5	1k
R6	100k
R7	27k
R8	100k
R9	470Ω
R10	100k
R11	1M
CLR	4.7k

### Capacitors

C1	1n
C2	100p
C3	30p
C4	4.7μ
C5	2.2μ
C6	2.2n
C7	10n
C8	330p
C9	2.2n
C10	100p
C11	30p
C12	47μ
C13	2.2μ
C14	47μ

### Semiconductors

D1	3mm red LED
D2	1N4148
D3	3mm red LED
D4	3mm red LED
D5	1N4148

D6	1N4148
D7	1N4148
D8	1N4148
D9	1N4148
D10	Germ/Schottky
D11	Germ/Schottky
D12	Germ/Schottky
D13	Germ/Schottky
D14	Germ/Schottky
D15	1N5817
IC1	LM308N
IC2	LM308N
IC3	LTC1144
LED	3 or 5mm LED

### Electromechanical

Bass	C1M
Clip	2P6T rotary
Gain	A100k
Low	1k trimmer
Other	1k trimmer
Treble	A1M
Volume	A500k

### Notes

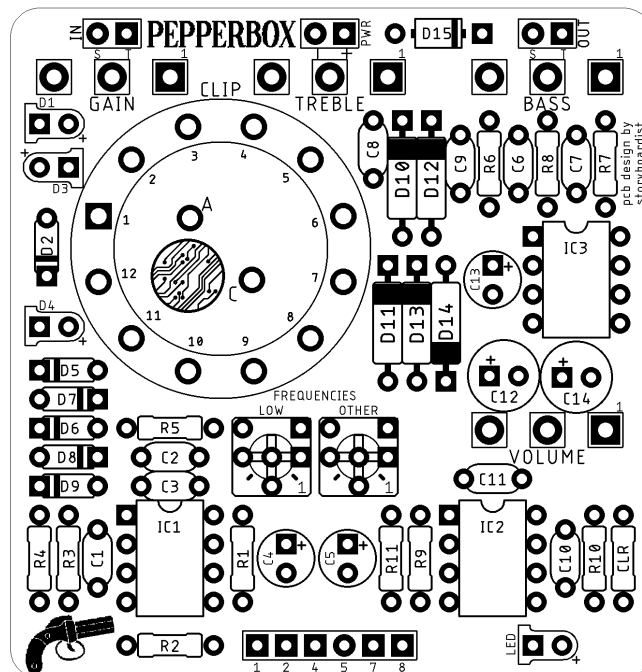
D10-14 can be 1N34As, BAT42s, or socket and experiment. Other voltage converting chips can be used in place of the LTC1144 like the MAX1044 or 7660SCPA, though C13 may need to be increased to 10μ. If you don't want to use an LM308 for the gain recover stage (IC2) some good subs would be the OP07, LM741 or other single opamps. Omit C11 if not using an LM308 or OP07.

## SHOPPING LIST

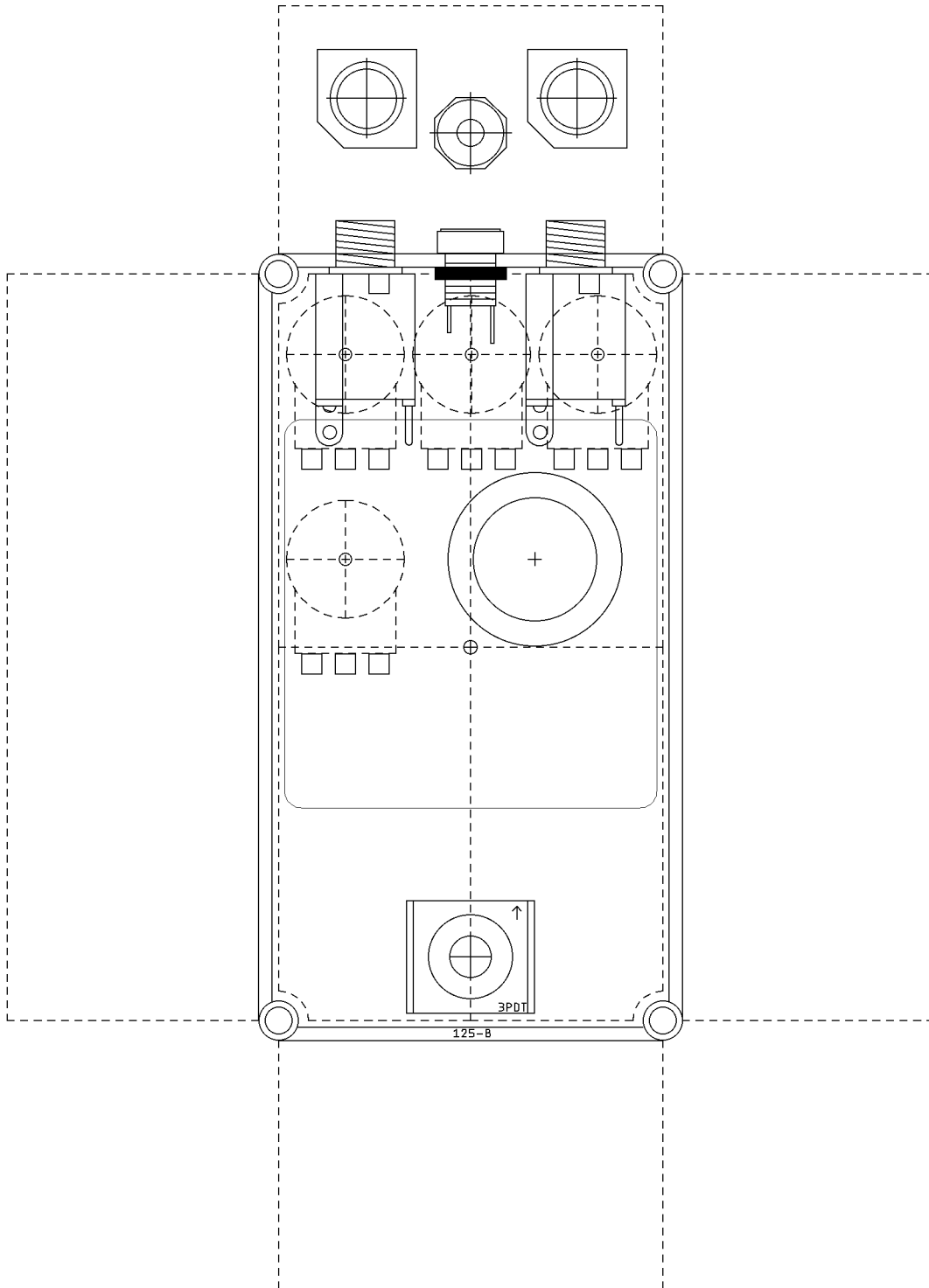
Value	Type (suggested)	Quantity
33Ω	¼ watt metal or carbon film	1
470Ω	¼ watt metal or carbon film	2
1k	¼ watt metal or carbon film	2

4.7k	¼ watt metal or carbon film	1
27k	¼ watt metal or carbon film	1
100k	¼ watt metal or carbon film	3
1M	¼ watt metal or carbon film	2
30p	Ceramic	2
100p	Ceramic	2
330p	Ceramic	1
1n	Film	1
2.2n	Film	2
10n	Film	1
2.2µ	Electrolytic (25v+)	2
4.7µ	Electrolytic (25v+)	1
47µ	Electrolytic (25v+)	2
1N34A/BAT42	Germanium/Schottky diodes	5
1N4148	Silicon switching diode	6
1N5817	Schottky rectifier diode	1
3mm LED	Red diffused 3mm	3
LED	3 or 5mm	1
LM308	Opamp	2
LTC1144	Voltage converter	1
1k trimmer	Trim potentiometer	2
2P6T	<a href="#">2 pole 6 throw rotary</a>	1
A100k	16mm right angle PC mount	1
A500k	16mm right angle PC mount	1
A1M	16mm right angle PC mount	1
C1M	16mm right angle PC mount	1

## LAYOUT



# DRILL TEMPLATE (125B)



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For DIY and small commercial applications.  
Not for non-peer to peer resale.