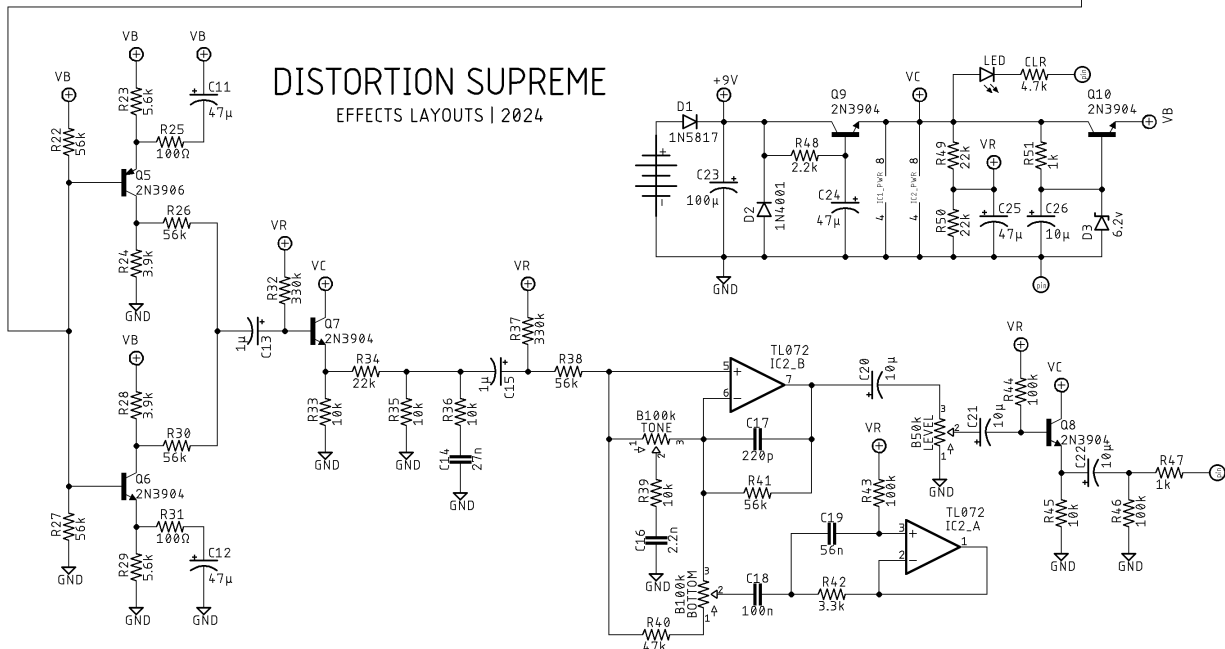
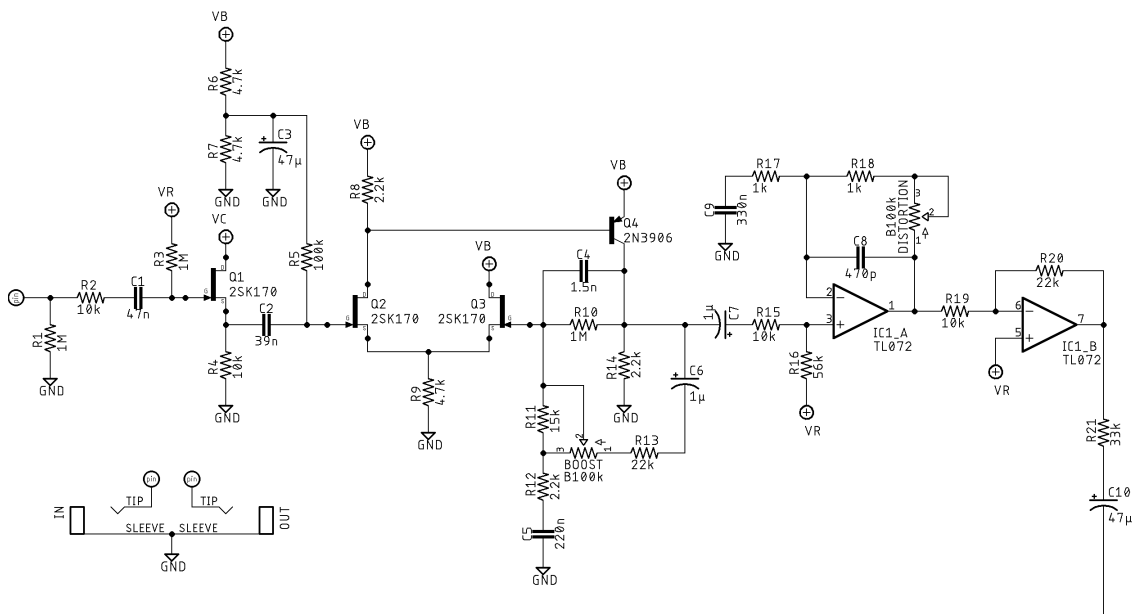


# Distortion Supreme

## DESCRIPTION

The DISTORTION SUPREME is a massive-sounding distortion circuit based on the Boss MD-2 Mega Distortion. This circuit uses a bit of everything—discrete JFET-based op amp, power amp distortion emulation, and a gyrator in the EQ section. It's also unique in not using any hard or soft clipping diodes to generate the distortion.

## SCHEMATIC



## BOM

### Resistors

R1	1M
R2	10k
R3	1M
R4	10k
R5	100k
R6	4.7k
R7	4.7k
R8	2.2k
R9	4.7k
R10	1M
R11	15k
R12	2.2k
R13	22k
R14	2.2k
R15	10k
R16	56k
R17	1k
R18	1k
R19	10k
R20	22k
R21	33k
R22	56k
R23	5.6k
R24	3.9k
R25	100Ω
R26	56k
R27	56k
R28	3.9k
R29	5.6k
R30	56k
R31	100Ω
R32	330k
R33	10k
R34	22k
R35	10k
R36	10k
R37	330k
R38	56k
R39	10k
R40	47k

R41	56k
R42	3.3k
R43	100k
R44	100k
R45	10k
R46	100k
R47	1k
R48	2.2k
R49	22k
R50	22k
R51	1k
CLR	4.7k

### Capacitors

C1	47n
C2	39n
C3	47μ
C4	1.5n
C5	220n
C6	1μ
C7	1μ
C8	470p
C9	330n
C10	47μ
C11	47μ
C12	47μ
C13	1μ
C14	27n
C15	1μ
C16	2.2n
C17	220p
C18	100n
C19	56n
C20	10μ
C21	10μ
C22	10μ
C23	100μ
C24	47μ
C25	47μ
C26	10μ

## Semiconductors

D1	1N5817
D2	1N4001
D3	1N4735 (6.2v Zener)
IC1	TL072
IC2	TL072
LED	3 or 5mm
Q1	2SK170
Q2	2SK170
Q3	2SK170
Q4	2N3906
Q5	2N3906
Q6	2N3904
Q7	2N3904
Q8	2N3904

Q9	2N3904
Q10	2N3904

## Electromechanical

DISTORTION	B100k
LEVEL	B50k
TONE	B100k
BOOST	B100k
BOTTOM	B100k

## Note

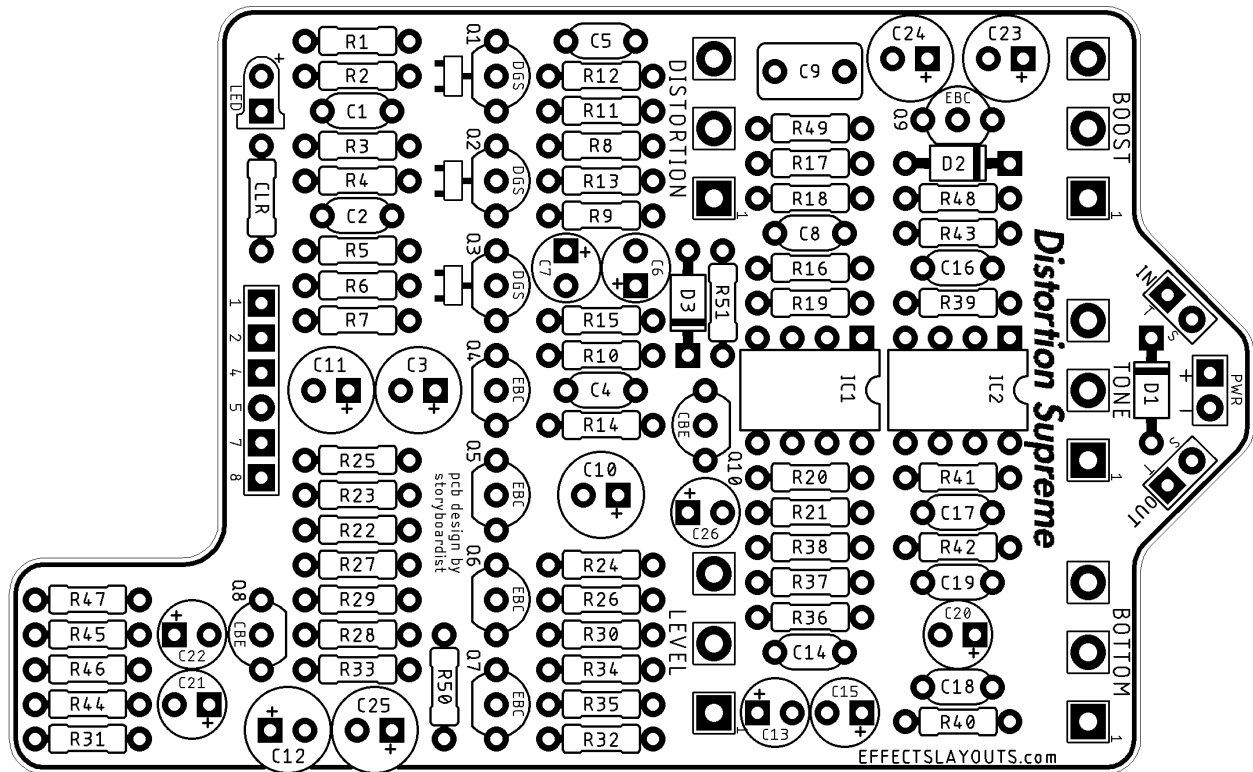
Surface mount or through hole packages may be used for Q1-3.

## SHOPPING LIST

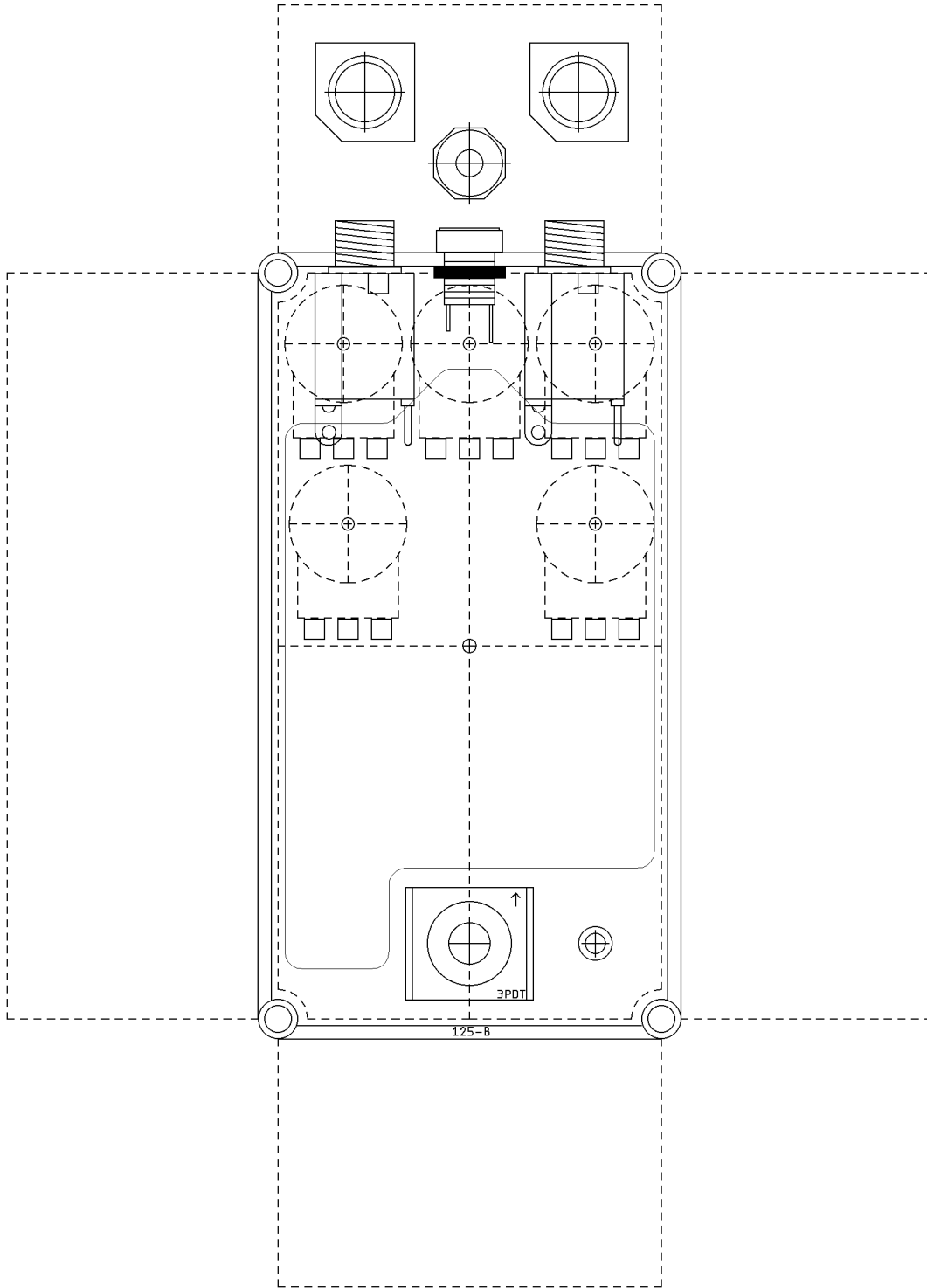
Part	Type (suggested)	Quantity
100Ω	¼ watt metal or carbon film	2
1k	¼ watt metal or carbon film	4
2.2k	¼ watt metal or carbon film	4
3.3k	¼ watt metal or carbon film	1
3.9k	¼ watt metal or carbon film	2
4.7k	¼ watt metal or carbon film	4
5.6k	¼ watt metal or carbon film	2
10k	¼ watt metal or carbon film	9
15k	¼ watt metal or carbon film	1
22k	¼ watt metal or carbon film	5
33k	¼ watt metal or carbon film	1
47k	¼ watt metal or carbon film	1
56k	¼ watt metal or carbon film	7
100k	¼ watt metal or carbon film	4
330k	¼ watt metal or carbon film	2
1M	¼ watt metal or carbon film	3
220p	Ceramic	1
470p	Ceramic	1
1.5n	Film	1
2.2n	Film	1
27n	Film	1
39n	Film	1
47n	Film	1

56n	Film	1
100n	Film	1
220n	Film	1
330n	Film	1
1μ	Electrolytic (25v+)	4
10μ	Electrolytic (25v+)	4
47μ	Electrolytic (25v+)	6
100μ	Electrolytic (25v+)	1
1N4001	Rectifier diode	1
1N4735	6.2v Zener diode	1
1N5817	Schottky rectifier diode	1
2N3904	NPN BJT	5
2N3906	PNP BJT	2
2SK170	JFET	3
LED	3 or 5mm	1
TL072	Dual op amp	2
B50k	16mm right angle PC mount potentiometer	1
B100k	16mm right angle PC mount potentiometer	4

## LAYOUT



# DRILL TEMPLATE (125B)



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