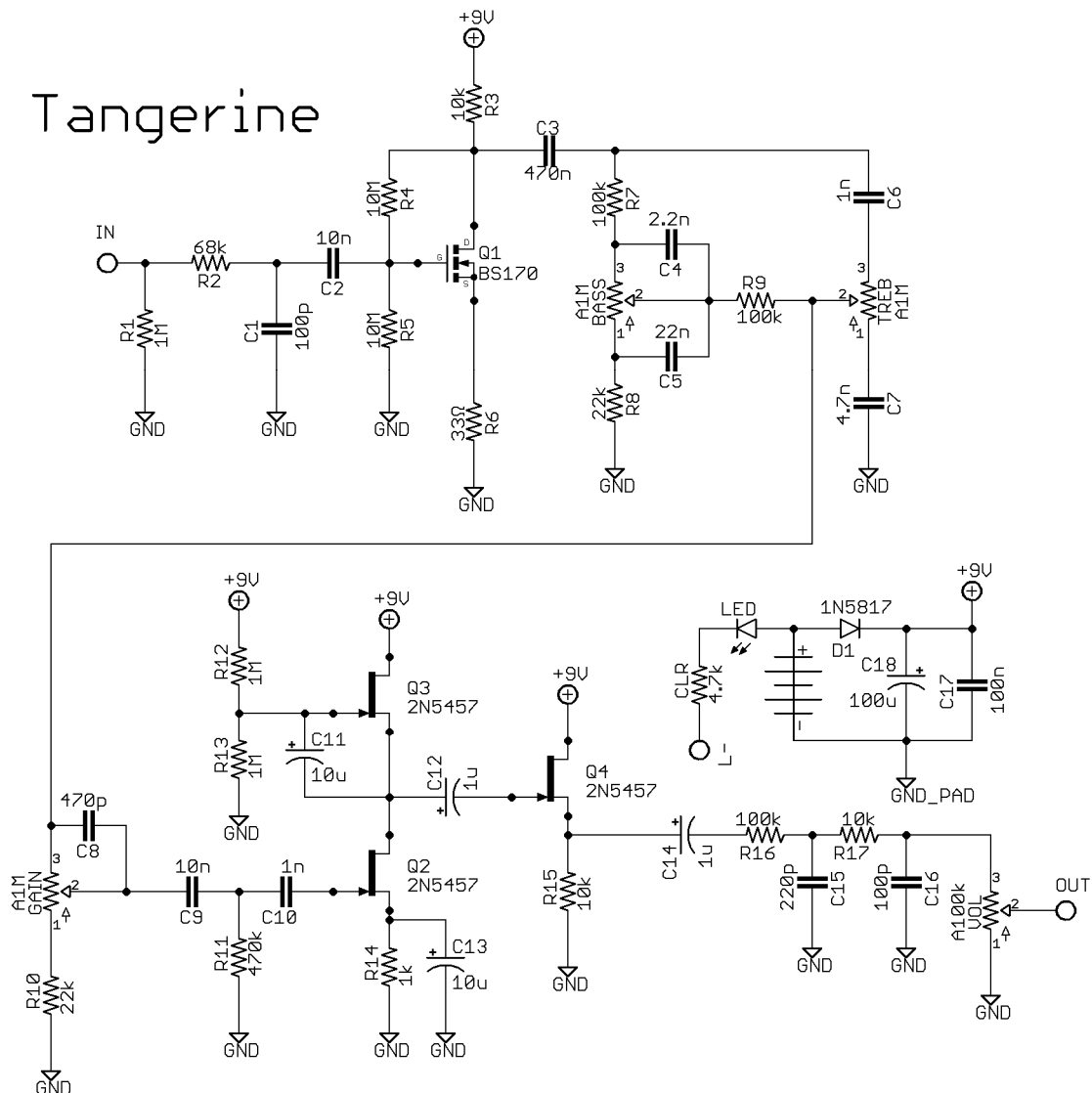


TANGERINE

DESCRIPTION

The TANGERINE is a FET-based emulator of vintage Orange amplifiers, and based on the now discontinued EQD Monarch. It features a classic Baxendall EQ stack offering a wide control over treble and bass frequencies, with loads of gain on tap. The input stage is a fairly standard MOSFET boost, followed by the EQ, and then a mu-amp stage using JFETs. You have the option of using either through-hole components or SMD packages for the transistors.

SCHEMATIC



BOM

Resistors

R1	1M
R2	68k
R3	10k
R4	10M
R5	10M
R6	33Ω
R7	100k
R8	22k
R9	100k
R10	22k
R11	470k
R12	1M
R13	1M
R14	1k
R15	10k
R16	100k
R17	10k
CLR	4.7k

Capacitors

C1	100p
C2	10n
C3	470n
C4	2.2n
C5	22n
C6	1n

C7	4.7n
C8	470p
C9	10n
C10	1n
C11	10μ
C12	1μ
C13	10μ
C14	1μ
C15	220p
C16	100p
C17	100n
C18	100μ

Semiconductors

D1	1N5817
LED	3 or 5mm LED
Q1	BS170 or MMBF170
Q2	2N5457 or MMBF5457
Q3	2N5457 or MMBF5457
Q4	2N5457 or MMBF5457

Electromechanical

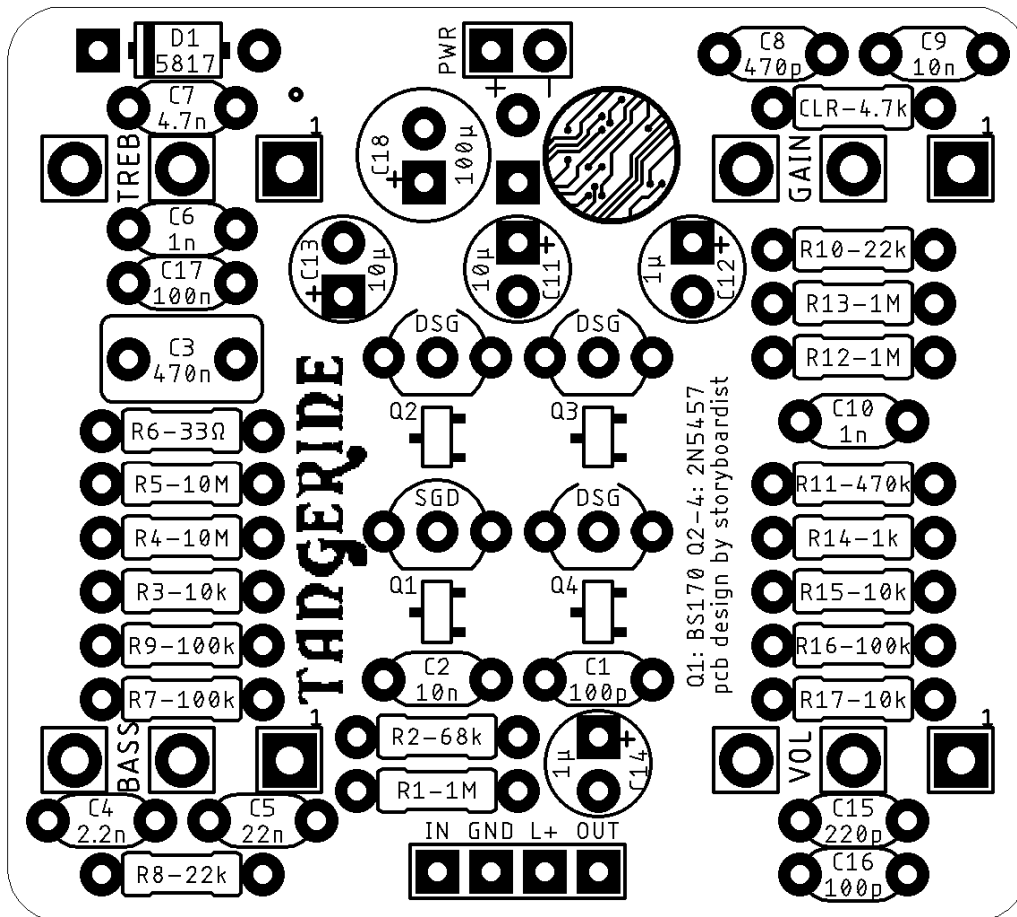
Bass	A1M
Gain	A1M
Treble	A1M
Volume	A100k

SHOPPING LIST

Value	Type (suggested)	Quantity
33Ω	¼ watt metal or carbon film	1
1k	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	1
10k	¼ watt metal or carbon film	3
22k	¼ watt metal or carbon film	2
68k	¼ watt metal or carbon film	1
100k	¼ watt metal or carbon film	3
470k	¼ watt metal or carbon film	1
1M	¼ watt metal or carbon film	3
10M	¼ watt metal or carbon film	2
100p	Ceramic	2
220p	Ceramic	1
470p	Ceramic	1

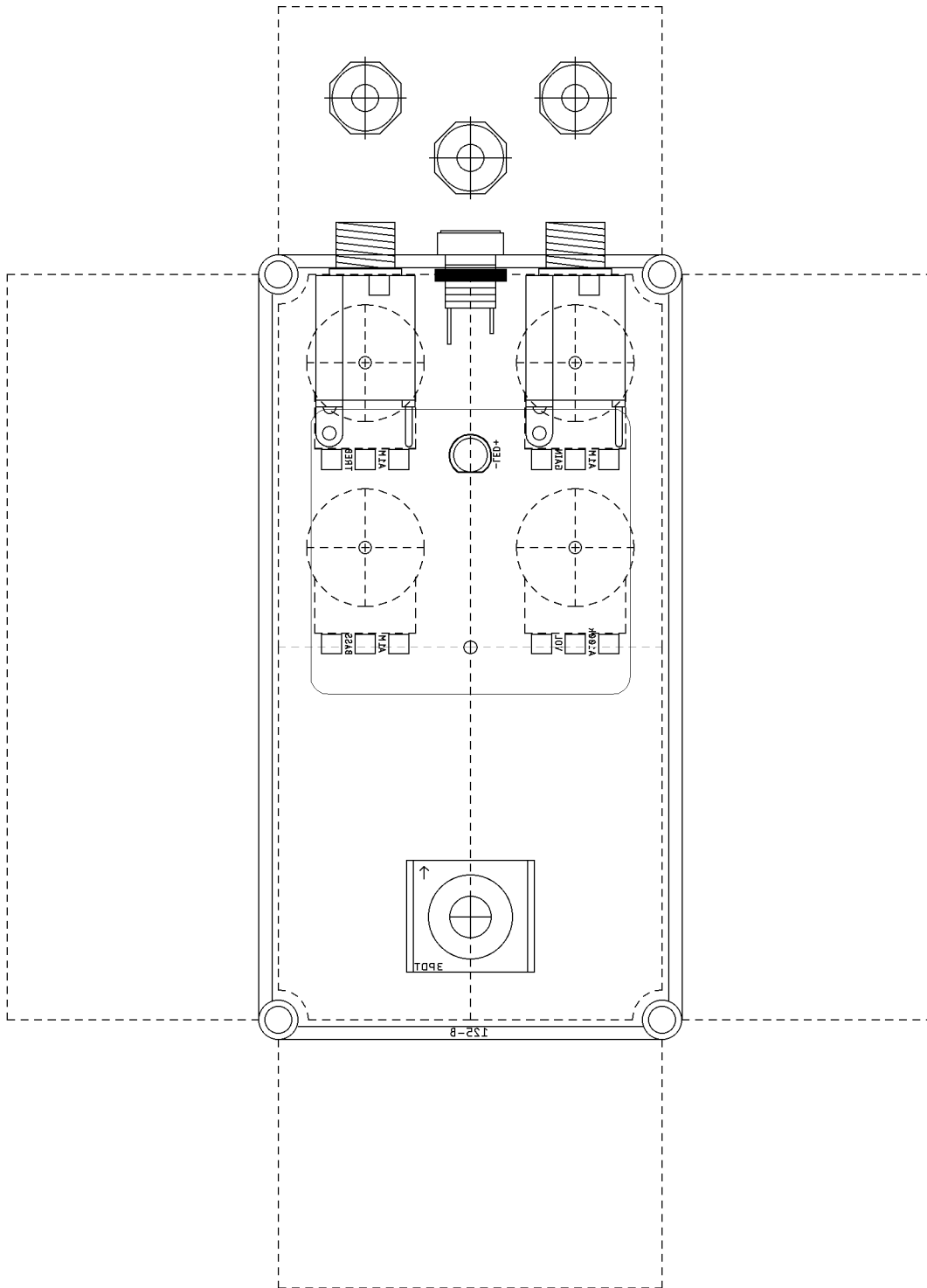
1n	Film	2
2.2n	Film	1
4.7n	Film	1
10n	Film	2
22n	Film	1
100n	Film	1
470n	Film	1
1μ	Electrolytic (35v or higher)	2
10μ	Electrolytic (35v or higher)	2
100μ	Electrolytic (35v or higher)	1
1N5817	Schottky rectifier diode	1
LED	3 or 5mm	1
BS170 or MMBF170	MOSFET	1
2N5457 or MMBF5457	JFET	3
A100k	16mm right angle PC mount	1
A1M	16mm right angle PC mount	3

LAYOUT

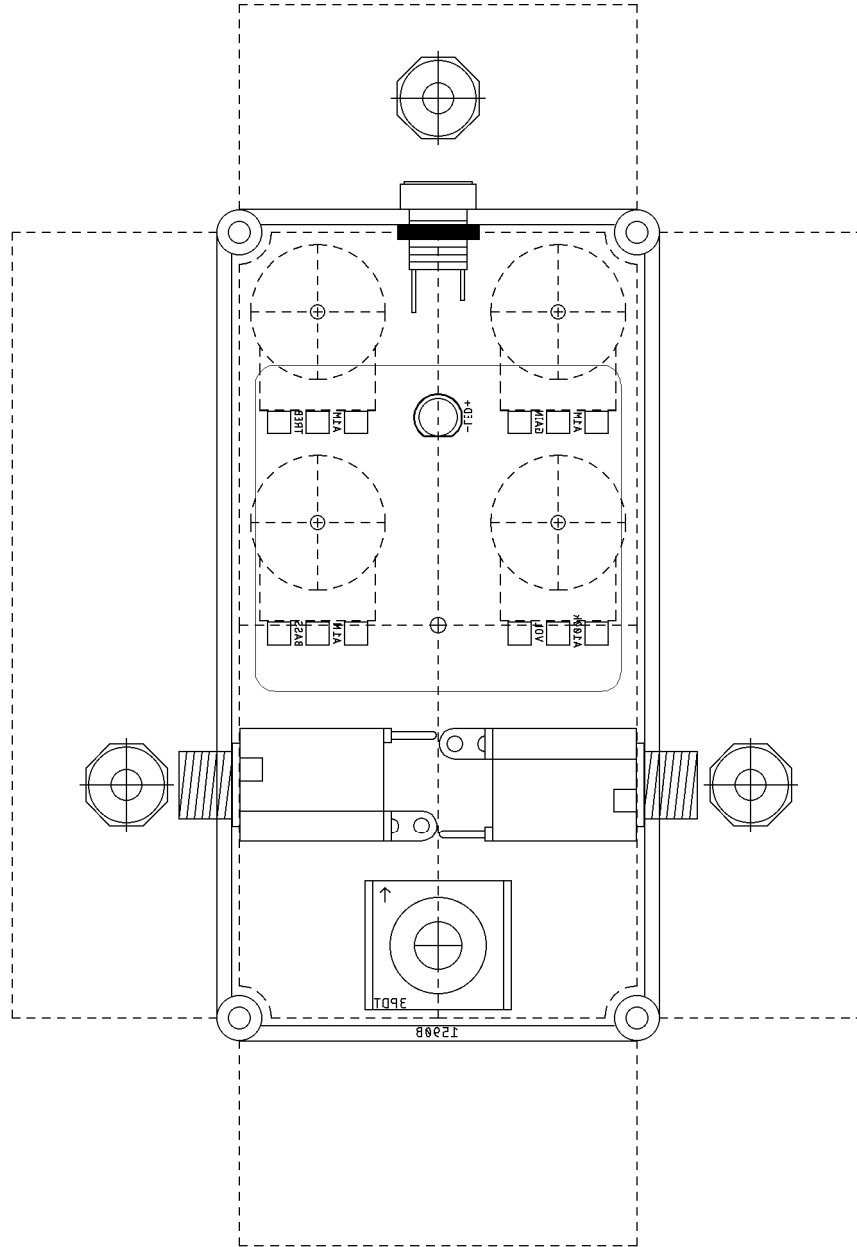


Note: the “L+” pad on the silkscreen should be “L-”.

DRILL TEMPLATE (125B)



DRILL TEMPLATE (1590B)



EFFECTS LAYOUTS © 2019
For DIY and small commercial applications.
Not for non-peer to peer resale.