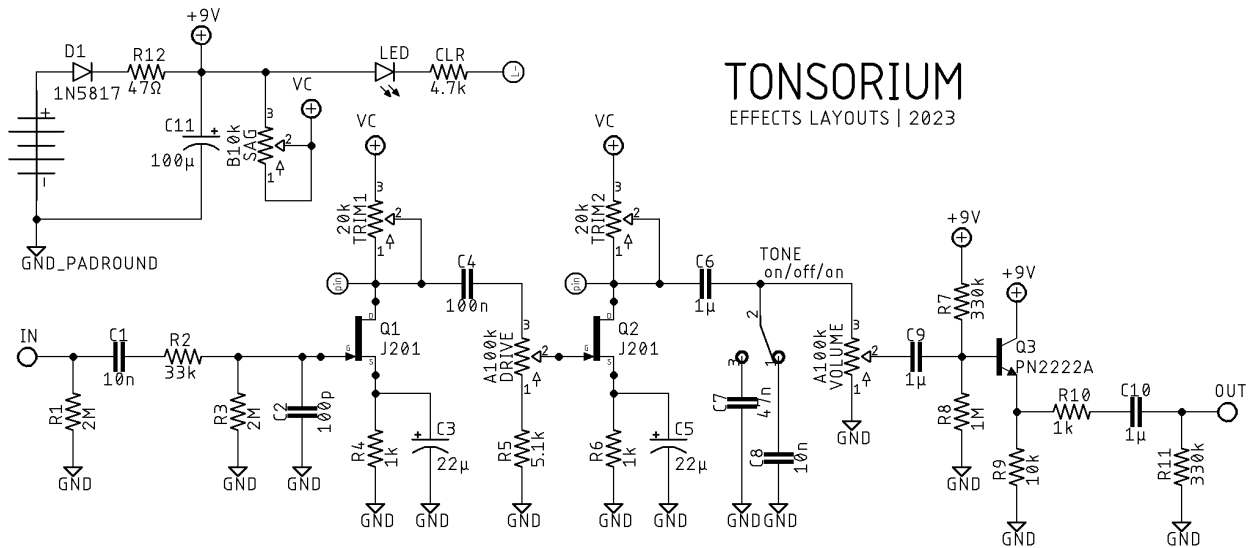


# Tensorium

## DESCRIPTION

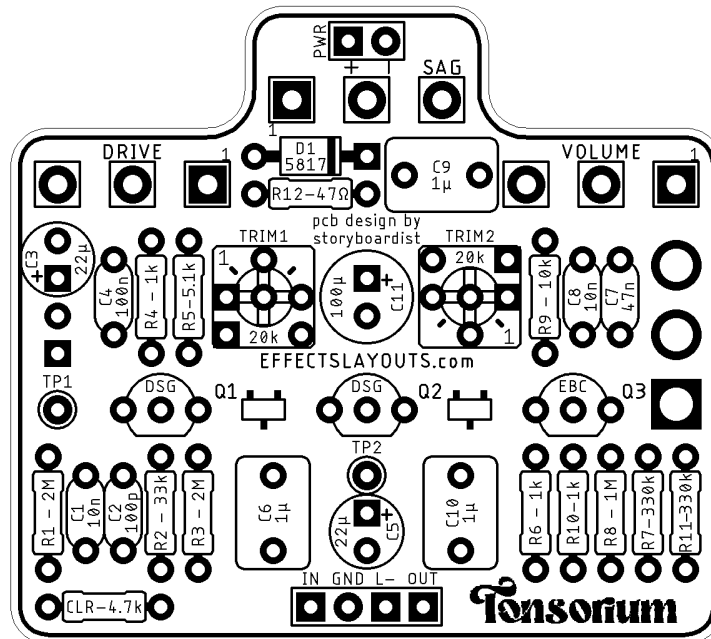
The TENSORIUM is a JFET-based overdrive based on the Fairfield Circuitry Barbershop V2. With a wide range of tones on tap from light grit to full-on distortion, the TENSORIUM is very responsive to picking intensity. Trim pots have been added to make dialing the right bias for the two JFET stages easier.

## SCHEMATIC



TENSORIUM  
EFFECTS LAYOUTS | 2023

## LAYOUT



## BOM

### Resistors

R1	2M
R2	33k
R3	2M
R4	1k
R5	5.1k
R6	1k
R7	330k
R8	1M
R9	10k
R10	1k
R11	330k
R12	47Ω
CLR	4.7k

### Capacitors

C1	10n
C2	100p
C3	22μ
C4	100n
C5	22μ
C6	1μ
C7	47n
C8	10n
C9	1μ

C10	1μ
C11	100μ

### Semiconductors

D1	1N5817
LED	3 or 5mm
Q1	J201/MMBFJ201
Q2	J201/MMBFJ201
Q3	PN2222A

### Electromechanical

Drive	A100k
Sag	B10k
Tone	SPDT on/off/on
Trim1	20k
Trim2	20k
Volume	A100k

### Note

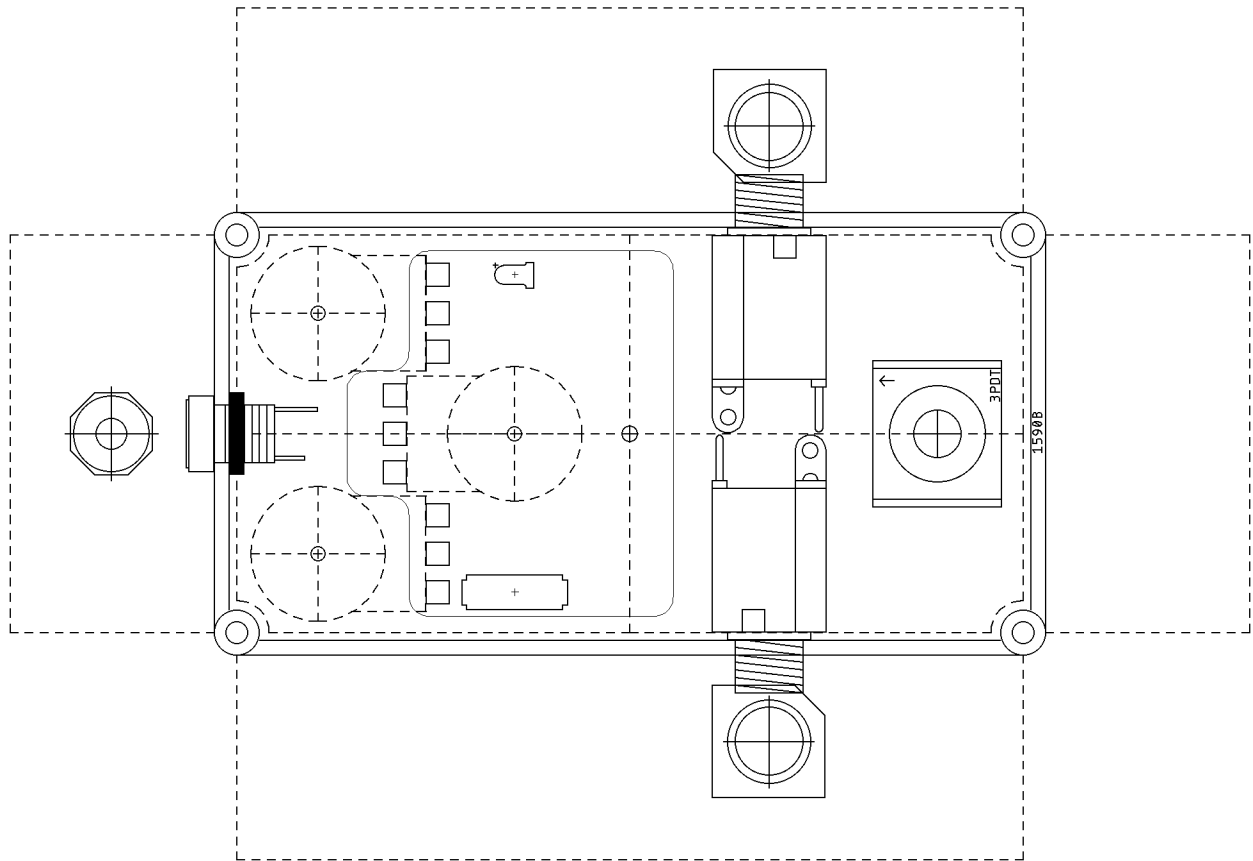
Test points (TP1 and TP2) are provided to easily measure voltage on the drains of Q1 and 2. When biasing the JFETs to approx. 6v, make sure the Sag pot is all the way clockwise. Either use a through-hole J201 or surface-mount MMBFJ201 for Q2; both are not required.

## SHOPPING LIST

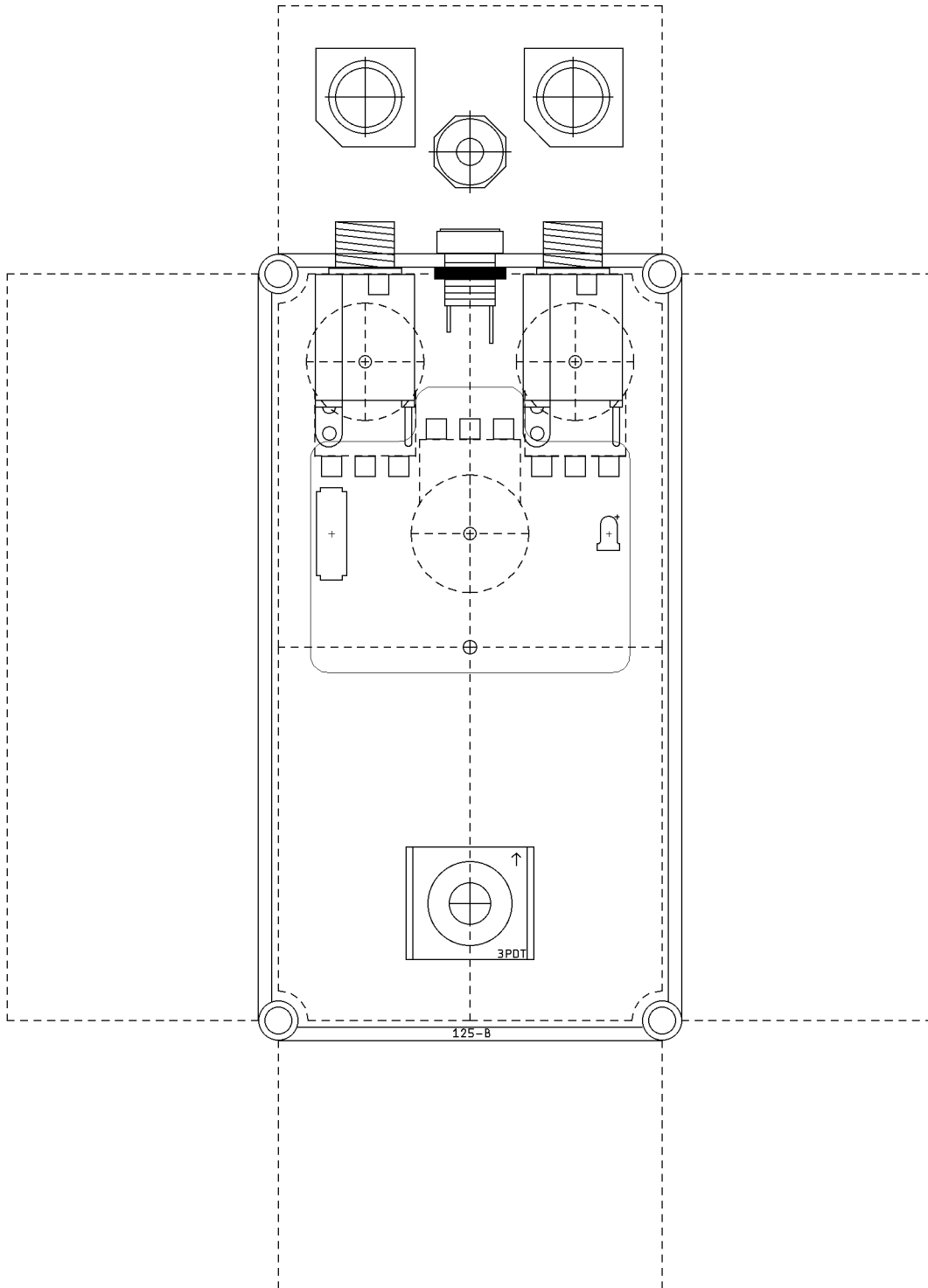
Value	Type (suggested)	Quantity
47Ω	¼ watt metal or carbon film	1
1k	¼ watt metal or carbon film	3
4.7k	¼ watt metal or carbon film	1
5.1k	¼ watt metal or carbon film	1
10k	¼ watt metal or carbon film	1
33k	¼ watt metal or carbon film	1
330k	¼ watt metal or carbon film	2
1M	¼ watt metal or carbon film	1
2M	¼ watt metal or carbon film	2
100p	Ceramic	1
10n	Film	2
47n	Film	1
100n	Film	1
1μ	Film	3

22μ	Electrolytic (25v+)	2
100μ	Electrolytic (25v+)	1
1N5817	Schottky rectifier diode	1
J201/MMMBFJ201	JFET	2
LED	3 or 5mm	1
PN2222A	BJT	1k
20k trim	Trim pot	2
A100k	16mm right angle PC mount potentiometer	2
B10k	16mm right angle PC mount potentiometer	1
SPDT	On/off/on toggle	1

**DRILL TEMPLATE (1590B)**



# DRILL TEMPLATE (125B)



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