

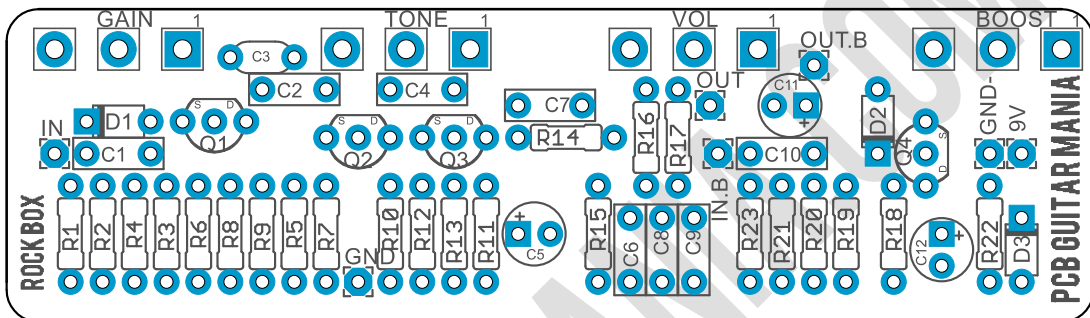
# Rock Box.

Based Zvex's Box of Rock.

Overdrive

By PCB Guitar mania Mania

[Project link](#)



The Rock Box has been specially designed to simulate the "British setting" sound of a classic Marshall JTM 45 non-master-volume amplifier.

- Ready to be wired as True Bypass.
- Tight design to fit in a 1590B Enclosure with pots on board.
- On board Booster.

## BOM

Resistors		Capacitors	
R1	1m	C1	100n
R2	1m	C2	22n
R3	5k1	C3	470pf
R4	1m	C4	22n
R5	470k	C5	1uf Electrolytic
R6	1m	C6	22n
R7	1m	C7	100n
R8	5k1	C8	2n
R9	180r	C9	2n
R10	1m	C10	100n
R11	1m	C11	10uf Electrolytic
R12	5k1	C12	47uf Electrolytic
R13	330r		
R14	47k	Transistors	
R15	82k	Q1	BS170
R16	10k	Q2	BS170
R17	10k	Q3	BS170
R18	1m	Q4	BS170
R19	1m		
R20	5k1	Diodes	
R21	47k	D1	9v1 Zener
R22	82r	D2	9v1 Zener
R23	1m	D3	1N4001
Pots			
GAIN	5k C		
TONE	100k B		
VOL	100k B		
BOOST	5k C		

## Shopping list

### Resistors

2	10k	R16, R17
1	180r	R9
10	1m	R1, R2, R4, R6, R7, R10, R11, R18, R19, R23
1	330r	R13
1	470k	R5
4	5k1	R3, R8, R12, R20
1	82k	R15
1	82r	R22
2	47k	R14, R21

### Pots

2	C5k	GAIN. BOOST
2	b100k	TONE, VOL

### Capacitors

1	470pf	C3
1	47uf electrolytic	C12
1	10uf electrolytic	C11
1	1uf electrolytic	C5
3	22n	C2, C4, C6
2	2n	C8, C9
3	100n	C1, C7, C10

### Semiconductors

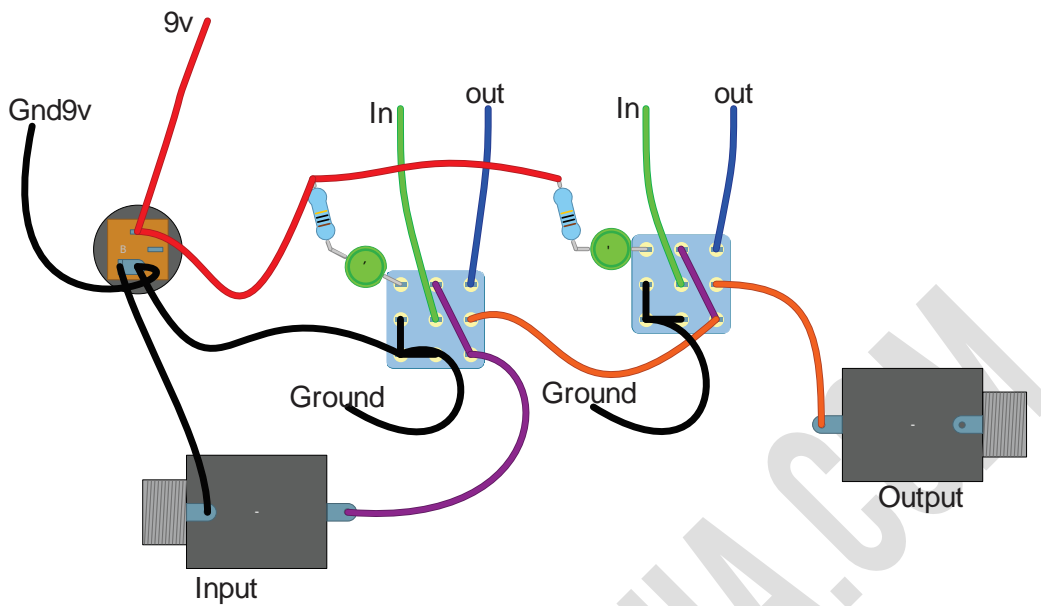
2	9v1 Zener	D1, D2
1	1n4001	D3
4	BS170	Q1, Q2, Q3, Q4

## General Building notes

To populate the PCB it's recommended to follow this order.

1. Resistors & diodes
2. IC Sockets (set up the proper IC at last)
3. Capacitors, starting with the smaller ones and the ceramic ones.
4. Electrolytic capacitors (always check the polarity)
5. Transistors
6. Wires
7. Potentiometers

## Off Board Wiring



The resistors for the leds must be solder on the longer leg of the LED. Choose a value in between 2k2 and 4k7 according to how much do you want it to bright. Ignore the pad on the board for R14 and the LED.

You could experiment with the order of the effects. The booster before the effect will act like a gain boost, while after works as a volume booster.

The Zvex version the Booster goes first to give you extra grit and power on your drive.

The booster is a simple but effective SHO.

## Drilling the enclosure

This Project has been planned to fit into a 1590B enclosure type (112x60x31mm)

Check the Attached "Drilling templates" to drill the box properly. The files are on Scale 1:1, ready to print in a A4 page.

