

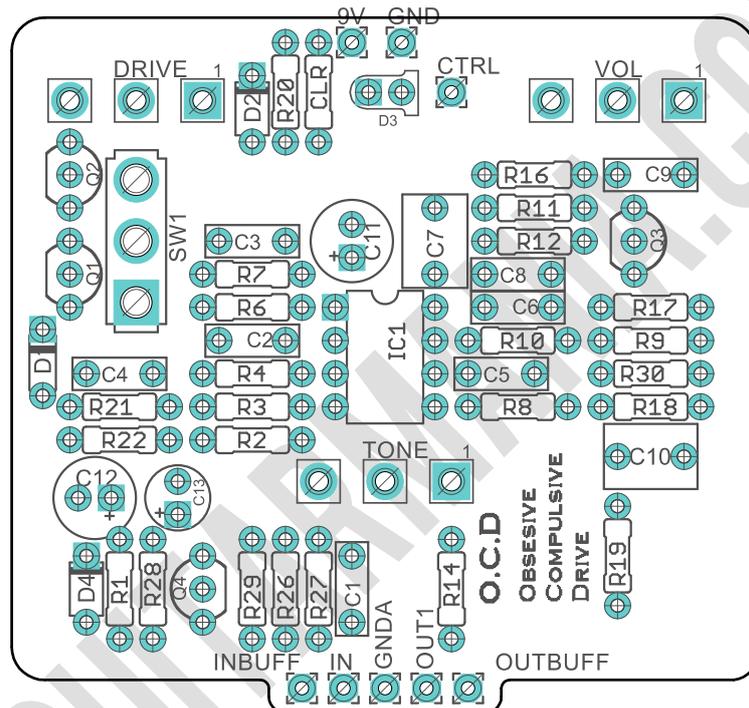
Obsessive .Compulsive .Drive

Based on Fulltone OCD

Overdrive - Distortion

By PCB Guitar mania Mania

[Project link](#)



The OCD accomplishes its tube-like distortion through the unusual combination of overdriving its JFET opamp, and then hard-clipping with a pair of MOSFETs later on in the circuit.

- Ready to be wired as True Bypass.
- Versatile board that allows you to build different versions of this classic drive.
- Includes extra Input and output buffer, and two switches to choose in between the stock version or the buffered one.
- HP/LP switch, increases the response of the drive knob. Choose in between a more distorted path or a lower gain set up with a little bit of coloration.
- Tight design to fit in a 125B Enclosure

BOM

Based on version III, for other versions check bellow.

Capacitors		Resistors	
C1	22n	R1	1M
C2*	68n	R2	10K
C3	220p	R3	1M
C4	1n	R4*	2K2
C5	100n	R6	18K
C6	220p	R7	10K
C7	1u	R8	10K
C8*	47n	R9	39K
C9	100n	R10	150K
C10	1u	R11	22K
C11	220u	R12	33K
C12	220u	R14	1K
C13	10u	R16	510K
		R17	10K
		R18	100r
Diodes		R19	47K
D1	Jumper*	R20	27r
D2	1n5817	R21	10K
D3	LED3MM	R22	10K
D4	9.1v zener	R26	10K
		R27	10K
Pots*		R28	1K
TONE	B10K	R29	27K
VOL	A100K	R30	10K
DRIVE	A1M		
Switches		Semiconductors	
SW1	SPDT	Q1	2N7000
SW2	SPDT	Q2	2N7000
SW3	SPDT	Q3	2N5088
		Q4	2N5457
		IC1	TL082

Alternative values and versions.

	V1	V2	V3	V4	JHS	PCB Mania
R4*	2k2	2k2	2k2	2k2	4k7	3k3
C2*	68n	68n	68n	68n	100n	100n

C8*	47n	47n	47n	47n	47n	22n
D1*	Jumper	Jumper	Jumper	1N34a	Jumper	Jumper
DRIVE	A500K	A500K	A1M	A1M	A1M	A1M
TONE	A25K	A25K	B10K	B10K	B10K	B10K
VOL	B100k	B500k	B500k	A500k	A500k	A100k

Shopping list

This list has some extra components so you could build different versions just by swapping some parts.

Resistors

1	100r	R18
9	10K	R2, R7, R8, R17, R21, R22, R26, R27, R30
1	150K	R10
1	18K	R6
2	1K	R14, R28
2	1M	R1, R3
1	22K	R11
1	33K	R12
1	39K	R9
1	3K3	R4
1	47K	R19
1	510K	R16
1	27K	R29
1	27r	R20
1	2K2	R4
1	4K7	R4

Capacitors

1	1n	C4
2	1u	C7, C10
2	220p	C3, C6
2	22n	C1, C8
3	100n	C2, C5, C9
1	47n	C8
1	68n	C2

Electrolytics

2	220u 25v
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1 10u 25v

Semiconductors

2 2N7000 Q1, Q2

1 2N5088 Q3

1 2N5457 Q4

1 TL082 IC1

Diodes

1 1n34a

1 1n5817

1 LED3MM

1 9.1v zener

Switches

3 SPDT On-On

Potentiometers

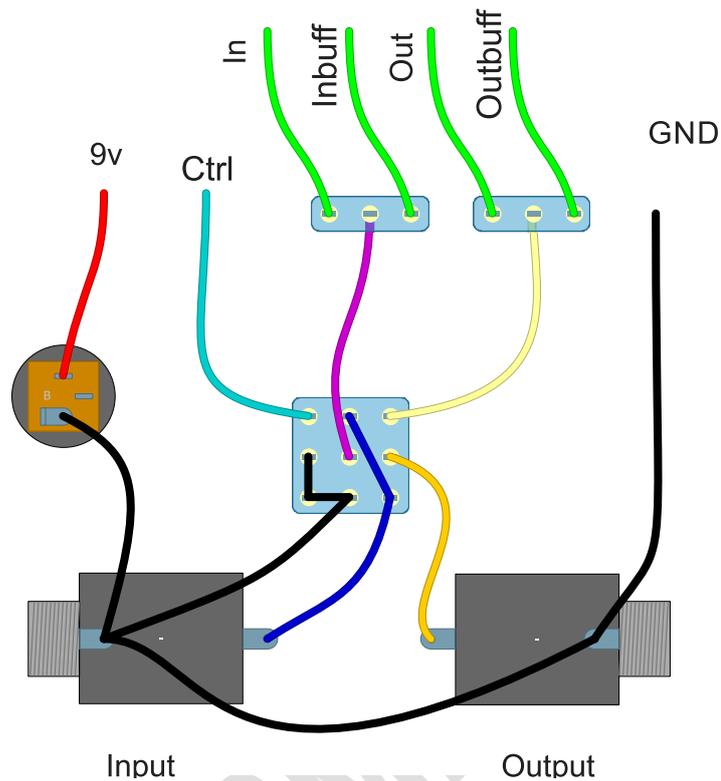
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General Building notes

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
8. Off board wiring

Off Board Wiring



You could just simply omit the switches and use it with the buffers always activated or deactivated by soldering the central cable of the switch into one of the pads of your choice.

Drilling the enclosure

This Project has been planned to fit into a 125B enclosure type (122x67x35mm approx.)

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

