

1991 Drive

Based on:

1981 DRV

Effect type:

Vintage
preamp/overdrive/distortion

Build difficult:

Average

Amount of parts:

Average, total 50 components

Technology:

Opamp

Power consumption:

9V

Enclosure type:

125b

Get your board at:

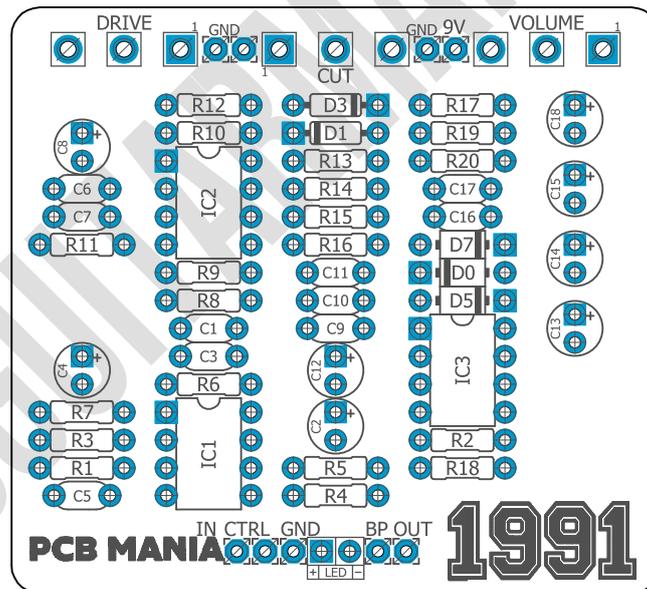
[1991 Drive](#)

Get your kit at:

[Das Musikding \(Europe\)](#)

Project overview:

This is an exceptional, vintage, versatile, highly interactive, nuanced preamp/distortion circuit. A little gem inspired by the well-thought-out 1981 DRV, resulting in something genuinely worthwhile of attention.



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Introduction

1991 Drive delivers refined open and responsive distortion and overdrive tones, all immersed in its distinct vintage aura.

Created by the pure necessity of a vintage distortion pedal able to achieve unique soundings, this circuit was crafted with a lot of consciousness, caring, and passion; and all that shows in the final result. With only three highly interactive knobs, you can find a wide variety of sounds. It has a broad range of great drive waves, from clean tone shaping or shiny drive to entirely saturated distortion tones. It can also be a fantastic dirty boost, shaping your amp to get a perfect distortion with an airy and open breakup that also tightens into more precise playing.

This board includes an internal charge pump powered by **IC3 LT1054***. You can use 7660s or Max1044 among others, but you must connect the two pads under IC3 with a little solder bridge.

Controls

- Cut
- Drive
- Volume

Bill of materials

Resistors	
Part	Value
R1	2m2
R2	100k
R3	1k
R4	2m2
R5	470r
R6	10k
R7	2k2
R8	1k
R9	2m2
R10	1k
R11	470r
R12	1k
R13	1k5
R14	10k
R15	2m2
R16	2m2
R17	470r
R18	4k7
R19	10k
R20	10k

Capacitors	
Part	Value
C1	22n
C3	390p
C5	100n
C6	3n3
C7	220n
C9	3n3
C10	22n
C11	3n3
C16	100n
C17	100n

Electrolytics Capacitors	
Part	Value
C2	4u7
C4	47u
C8	4u7
C12	4u7
C13	100u
C14	10u
C15	10u
C18	47u

Potentiometers	
Part	Value
CUT	100k A
DRIVE	100k A
VOLUME	100k A

Trim pots	
Part	Value
IC1	TL072
IC2	TL072
IC3	LT1054*

Diodes	
Part	Value
D0	1n5817
D1	1n914
D3	1n914
D5	1n5817
D7	1n5817
LED	3mm red LED

Shopping list

Resistors		
Qty	Value	Parts
1	100k	R2
4	10k	R6, R14, R19, R20
4	1k	R3, R8, R10, R12
1	1k5	R13
1	2k2	R7
5	2m2	R1, R4, R9, R15, R16
3	470r	R5, R11, R17
1	4k7	R18

Capacitors		
Qty	Value	Parts
3	100n	C5, C16, C17
1	220n	C7
2	22n	C1, C10
1	390p	C3
3	3n3	C6, C9, C11

Electrolytics Capacitors		
Qty	Value	Parts
1	100u	C13

2	10u	C14, C15
2	47u	C4, C18
3	4u7	C2, C8, C12

Potentiometers		
Qty	Value	Parts
3	100k A	CUT, DRIVE, VOLUME

IC		
Qty	Value	Parts
1	LT1054	IC3
2	TL072	IC1, IC2

Diodes		
Qty	Value	Parts
3	1n5817	D0, D5, D7
2	1n914	D1, D3
1	3mm red LED	LED

Components Recommendations

As many people like to experiment with some pedals with higher voltage, always ensure your **electrolytic capacitors'** max tolerance is over 25v.

This board has been tested using Film box capacitors for most of the values over 1nf and ceramics discs for those under 1nf. However, high-quality components such as Wima's Capacitors and Panasonic's electrolytics can deliver a better performance.

All the resistors used for testing this project are 1/4W Metal Film.

The BOM and Shopping list are exclusive regarding this project. It doesn't include all the hardware like the 3PDT bypass switch, audio/dc jacks, enclosure, etc.

Build Notes

If this is one of your first projects, I recommend you to take a look at our [Pedal Building Guide](#).

For a successful and tidy build, it's recommended the following order:

1. Resistors & diodes
2. Capacitors, starting with the smaller ones and the ceramic ones.
3. Electrolytic capacitors (always check the polarity)
4. Transistors
5. Wires
6. Potentiometers and switches
7. Off-board wiring

This board includes an internal charge pump powered by **IC3 LT1054***. You can use 7660s or Max1044 among others but you must connect the two pads under IC3 with a little solder bridge.

Wiring Diagram

All our projects include a free 3PDT Board to make the wiring easier and tidier. Also, all of our PCBs feature the status LED on board.

The pad named "Ctrl" or "LED" is the one that controls the status of the led; wire it to the "LED" pad on the 3PDT board or in the control slug of your 3PDT.

This board has been designed to match our EZ 3PDT PCB; check it [here](#) to access our [Pedal Wiring Guide](#).

Drill Template

This Project has been planned to fit into a 125b enclosure type.

Check the Attached “Drilling templates” to drill the box properly. The files are on Scale 1:1, ready to print on an A4 page.

Licensing and Usage

We really appreciate your trust and support in buying this PCB, as well as your will to dive into the DIY electronics world. For us, that's why you can make this project work properly and enjoy not only the building process but also experiment and play with it on your rig.

We try to reply to every question we receive on our email or our social media. Still, we try to encourage all our customers to join our [PCB Guitar Mania - Builders Group](#) on Facebook to post all your doubts, issues, suggestions, or requests, share your builds, and have some feedback from other fellow builders and us!

We tested all our projects following this same guide on their standard configurations. Although, not all of the variations and mods have necessarily been checked. These are suggestions based on the schematic analysis and the experiences and opinions of others. Feel free to share with us your views and recommendations regarding the mods your personal experimentation.

These boards may be used for commercial endeavors in any quantity unless expressly noted. No attribution is necessary, though accreditation or a link back is always much appreciated.

If you are a builder planning to make your own run of pedals, we also offer the service of custom-made boards with your brand and logo, design according to your specifications.

The only usage restrictions are that, first, you cannot resell the PCB as part of a kit without prior arrangement with us, and second, you cannot scratch off the silkscreen or other way of trying to hide our logos and the source of the PCBs. Like it's written above, if you want to have your designs with your brand and logo, we could undoubtedly reach an agreement.

Follow us on [Instagram](#) and [Facebook](#) to stay in tune with the latest projects!