

# Nuke-out

**Based on:**  
ThorpyFX Fallout Cloud

**Effect type:**  
Muff style fuzz

**Build difficult:**  
Average

**Amount of parts:**  
Average, total 57 components

**Technology:**  
NPN Silicon transistors

**Power consumption:**  
9V

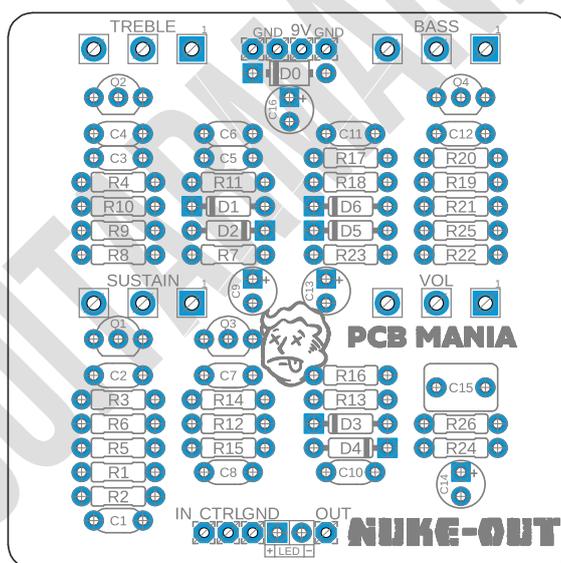
**Enclosure type:**  
125b

**Get your board at:**  
[Nuke-out](#)

**Get your kit at:**  
[Das Musikding \(Europe\)](#)

## Project overview:

Inspired by Thorpy FX Fallout Cloud. A new twist on the Big Muff circuit featuring a Baxandall Tone section expanding your tonal possibilities to the limit.



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# Introduction

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Fuzz. Fuzz never changes...but it can improve!

The Nuke-Out is a fuzz circuit based on the classic triangle Muff design, but it is to it what an H-bomb is to an A-bomb. Sure, both are deadly, but if you had to choose one to have in your arsenal, then why settle on the basic version? This improved design was made with the idea of winning any shootout versus the original - no matter what guitar, pickup, or amp is used. And boy, oh boy, it wins hard!

The controls in this unit are kept to the basics, but with the EQ section divided into separate BASS and TREBLE knobs for the player to be able to set the tone exactly as imagined. With these two controls, you can slide from silky-smooth tones to totally devastating mayhem that would make many doom bands blush. The classic SUSTAIN control is exactly what you remember from a typical Muff, but with a much-improved range. In tandem with the volume knob on your guitar, the possibilities are endless - from warm, clean tones to a saturated monster in a matter of seconds. With the VOLUME knob, you basically have 3 options - go easy on your amp (but who would want that, really?), set it to 'unity gain', so you don't have any volume difference between your bypass signal and when the pedal is engaged, or push the amp to its limits and see what it's made of.

If you ever played a triangle Muff, but felt a bit limited with the available controls and thought like it should be able to go a step or two farther with the saturation, then look no further - Nuke Out has all your bases covered.

## Controls

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- BASS
- SUSTAIN
- TREBLE
- VOL

# Bill of materials

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Resistors	
Part	Value
R1	3k3
R2	1m
R3	22k
R4	1k
R5	82k
R6	390k
R7	820r
R8	8k2
R9	390k
R10	12k
R11	150r
R12	8k2
R13	82k
R14	390k
R15	22k
R16	820r
R17	10k
R18	10k
R19	10k
R20	33k
R21	2m2
R22	150r
R23	4k7
R24	330r
R25	150r
R26	4k7

Capacitors	
Part	Value
C1	100n
C2	100n
C3	100n
C4	569p
C5	47n
C6	100n
C7	569p
C8	47n
C10	2n2
C11	2n2

C12	22n
C15	1u

Electrolytics Capacitors	
Part	Value
C9	4u7
C13	4u7
C14	47u
C16	100u

Potentiometers	
Part	Value
BASS	100k B
SUSTAIN	100k B
TREBLE	100k B
VOL	100k A

Transistors	
Part	Value
Q1	BC549C
Q2	BC549C
Q3	BC549C
Q4	BC549C

Diodes	
Part	Value
D0	1n5817
D1	1n4148
D2	1n4148
D3	1n4148
D4	1n4148
D5	1n4148
D6	1n4148

# Shopping list

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Resistors		
Qty	Value	Parts
3	10k	R17, R18, R19
1	12k	R10
3	150r	R11, R22, R25
1	1k	R4
1	1m	R2
2	22k	R3, R15
1	2m2	R21
1	330r	R24
1	33k	R20
3	390k	R6, R9, R14
1	3k3	R1
2	4k7	R23, R26
2	820r	R7, R16
2	82k	R5, R13
2	8k2	R8, R12

Capacitors		
Qty	Value	Parts
4	100n	C1, C2, C3, C6
1	1u	C15
1	22n	C12
2	2n2	C10, C11
2	47n	C5, C8
2	569p	C4, C7

Electrolytics Capacitors		
Qty	Value	Parts
1	100u	C16
1	47u	C14
2	4u7	C9, C13

Potentiometers		
Qty	Value	Parts
1	100k A	VOL
3	100k B	BASS, SUSTAIN, TREBLE

Transistors		
Qty	Value	Parts
4	BC549C	Q1, Q2, Q3, Q4

Diodes		
Qty	Value	Parts
6	1n4148	D1, D2, D3, D4, D5, D6
1	1n5817	D0



# Components Recommendations

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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

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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

## Wiring Diagram

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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

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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

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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.

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