

Tone Conqueror

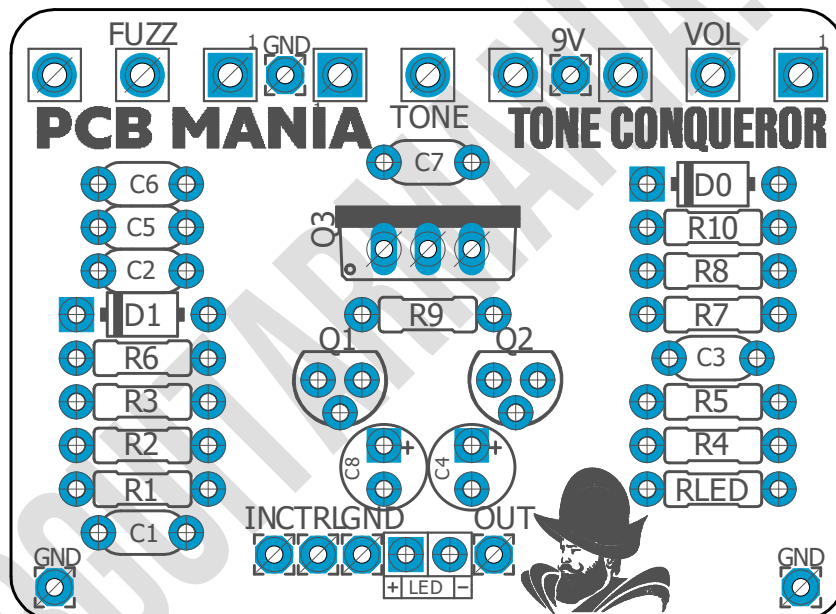
Based on:
Way Huge's Conquistador
Effect type:
Gated Fuzz
Build difficult:
Beginner

Amount of parts:
Low, total 28 components
Technology:
Silicon transistors
Power consumption:
9V

Enclosure type:
1590b
Get your board at:
[Tone Conqueror](#)
Get your kit at:
[Das Musikding \(Europe\)](#)

Project overview:

A Fuzzrious Gated Fuzztortion based on Way Huge's Conquistador, with roots in the classic Tone Bender MKIII. Total gated Velcro stoner fuzz tone!



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Introduction

You like it rough and unpolished without getting noisy? The tone conqueror is a gated Fuzzstortion for your Doom needs and has its roots in the Way Huge conquistador™. Fairly simple to build but does hard things to your tone. Personally I liked it even better when the front was hit by a boost pedal to make the effect even more intense. So you may want to keep that in mind when building it and may put it all in one enclosure.

I sourced the MJE210 from electricsee on eBay. A supplier in Taiwan I used quite frequently the last time. Shipping times more than okay for parts travelling half the planet. But there are plenty equivalents with the correct TO18 footprint when you check google. But you need to compare the datasheets for the correct pin out since normal sockets will not work (to18 has wider legs).

Some guys who are struggling with datasheets simply flip the pedal over, lay that part in its spot, make sure it's not touching anywhere else beside the contacts, engage the pedal, strum a chord when all knobs at noon. Disengage the pedal, flip the transistor 180 degree and repeat the process. I know that's not how professional builds do it. But may help some guys with their first builds and you should clearly hear the difference in volume and gain. But take your time and may repeat it 1-2-3 times to avoid not hearing anything from bad contact to the solder pads. Then get the build back out of its enclosure, slightly bend the potentiometer so you reach the pcb with your solder iron and well... I think you know how to continue from there.

CHECK THE PICTURE BELOW ON HOW TO PLACE THE TRANSISTOR CORRECTLY

Bill of materials

Resistors	
Part	Value
R1	1m
R2	220k
R3	47k
R4	10k
R5	2k
R6	10k
R7	1k
R8	20k
R9	5k1
R10	6k2
RLED	4k7

Capacitors	
Part	Value
C1	47n
C2	220p
C3	100n
C5	100n
C6	68n
C7	100n

Electrolytics Capacitors	
Part	Value
C4	10u
C8	10u

Potentiometers	
Part	Value
FUZZ	500k C
TONE	100k B
VOL	50k B

Transistors	
Part	Value
Q1	2N3906
Q2	2N3906
Q3	MJE210*

Diodes	
Part	Value
D0	1n5817
D1	1n4001
LED	3mm LED

Shopping list

Resistors		
Qty	Value	Parts
2	10k	R4, R6
1	1k	R7
1	1m	R1
1	20k	R8
1	220k	R2
1	2k	R5
1	47k	R3
1	4k7	RLED
1	5k1	R9
1	6k2	R10

Capacitors		
Qty	Value	Parts
3	100n	C3, C5, C7
1	220p	C2
1	47n	C1
1	68n	C6

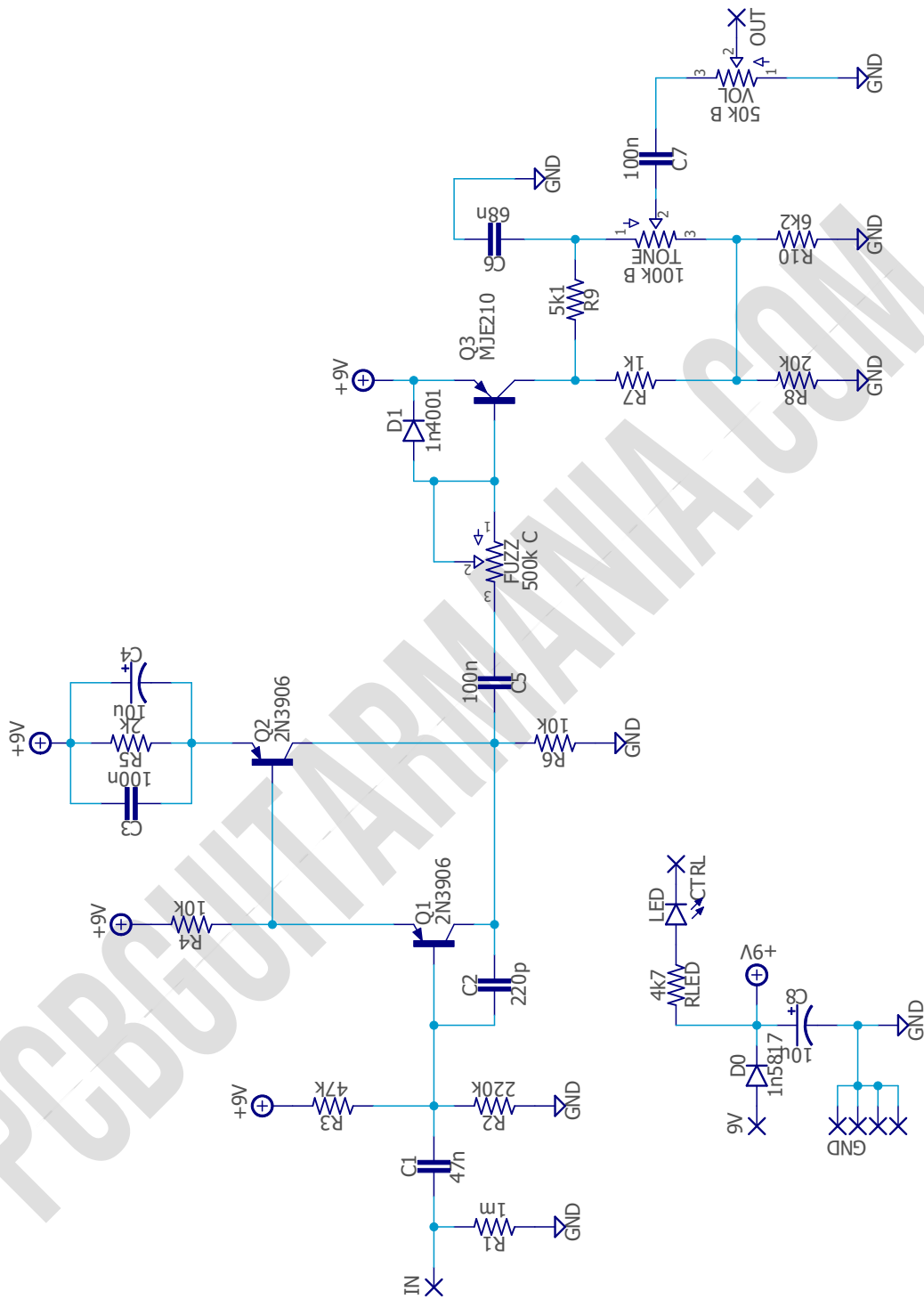
Electrolytics Capacitors		
Qty	Value	Parts
2	10u	C4, C8

Potentiometers		
Qty	Value	Parts
1	100k B	TONE
1	500k C	FUZZ
1	50k B	VOL

Transistors		
Qty	Value	Parts
2	2N3906	Q1, Q2
1	MJE210*	Q3

Diodes		
Qty	Value	Parts
1	1n4001	D1
1	1n5817	D0
1	3mm LED	LED

Schematic



Components Recommendations

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

This board has been tested using Film box capacitors for most of the values over 1nf, and ceramics discs for the ones 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 exclusively regarding this project. It doesn't include all the hardware like the 3PDT bypass switch, audio/dc jacks, enclosure, etc.

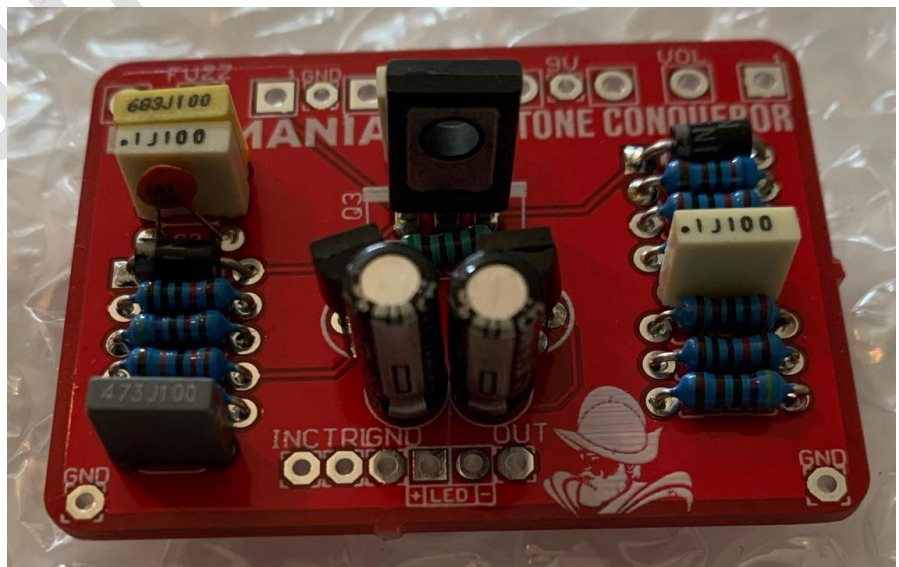
MJE210* In theory this transistor could be replaced by any other low gain (180hfe aprox) PNP transistor. You can even try some germanium ones here, just take in consideration the pinout marked on board.

Build Notes

If this is one of your first projects I recommend you to take a look on 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



On the picture you can see the right orientation of Q3, with the metal part facing to the other transistors. You can check other transistors following the Pinout specified on board.

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 control slug of your 3PDT.

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

Drill Template

This Project has been planned to fit into a 1590b enclosure type.

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

Licensing and Usage

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

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

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

These boards may be used for commercial endeavors in any quantity unless specifically noted. No attribution is necessary, though accreditation or a link back is always greatly 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 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 silk screen, 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 own designs, with your brand and logo we could certainly reach an agreement.

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