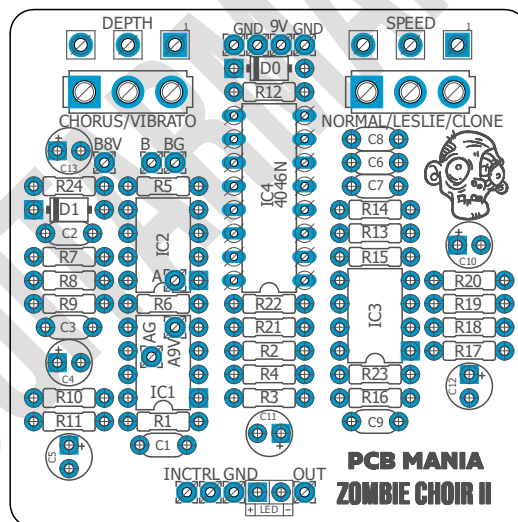


Zombie Choir II

Based on: Zombie Chorus II	Amount of parts: Average, total 48 components	Enclosure type: 125b
Effect type: Analog Chorus/Vibrato	Technology: MN3007 / MN3207 Analog Chorus	Get your board at: Zombie Choir
Build difficult: Advanced	Power consumption: 9V	Get your kit at: Das Musikding (Europe)

Project overview:

The Zombie Chorus is one pedal that for sure you've never heard of it outside the DIY pedals community, but's definitely a classic that deserves a place on each player board. This circuit was originally designed by John Hollis, and has been updated and improved through the years on many online forums. Here you have our version ready to build with all the mods and corrections implemented, so you can make your analog dreams come true with this powerful brain eater Chorus/Vibrato!



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Introduction

This one is a circuit you can't buy as a pedal. This not just makes it rare to own but also gives you tones non DIY consumers will never have in there hands. Schematic is around in the diy community for years and it's quiet fun to mess with. So we simply added every mod to it we could research to give you the most possible options this weird wobbling twangy chorus can give. Not only allowing you to use different modulation chips (usually the one that's easier to source for you) by running jumpers. We also added two toggles to let you choose between chorus and vibrato. Normal mode or Leslie type of sounds and it's very own clone setting. Can't wait to get feedback how you guys like it.

Don't get confused by C4's footprint on the pcb. It's a 2.2nf (2n2) Film capacitor and not a 2.2uf electrolyte.

Controls

- Depth
- Speed
- Chorus/Vibrato Toggle
- Normal/Leslie/ Clone Toggle

Bill of materials

Resistors	
Part	Value
R1	10m
R2	10m
R3	47k
R4	100k
R5	10k
R6	47k
R7	47k
R8	47k
R9	47k
R10	10k
R11	100k
R12	10k
R13	100k
R14	68k
R15	4m7
R16	47k
R17	100k
R18	4k7
R19	10k
R20	10k
R21	15k
R22	10k
R23	2k7
R24	100r

Capacitors	
Part	Value
C1	1n
C2	1n
C3	220pf
C6	1n
C7	390pf
C8	1n
C9	10n
C4	2n2**

Electrolytics Capacitors	
Part	Value
C5	1u
C10	100u
C11	100u
C12	100u
C13	10u

Potentiometers	
Part	Value
DEPTH	100k A
SPEED	100k A

IC	
Part	Value
IC1	TL062
IC2	MN3207/MN3007*
IC3	JRC4558
IC4	4046N

Switches	
Part	Value
Chorus/ Vibrato	SPDT ON/ON
Normal/ Leslie/ Clone	SPDT ON/OFF/ON

Diodes	
Part	Value
D0	1n5817
D1	8.v2 Zener
LED	3mm LED

Shopping list

Resistors		
Qty	Value	Parts
4	100k	R4, R11, R13, R17
1	100r	R24
6	10k	R5, R10, R12, R19, R20, R22
2	10m	R1, R2
1	15k	R21
1	2k7	R23
6	47k	R3, R6, R7, R8, R9, R16
1	4k7	R18
1	4m7	R15
1	68k	R14

Capacitors		
Qty	Value	Parts
1	10n	C9
4	1n	C1, C2, C6, C8
1	220pf	C3
1	390pf	C7

Electrolytics Capacitors		
Qty	Value	Parts
3	100u	C10, C11, C12
1	10u	C13
1	1u	C5
1	2n2**	C4

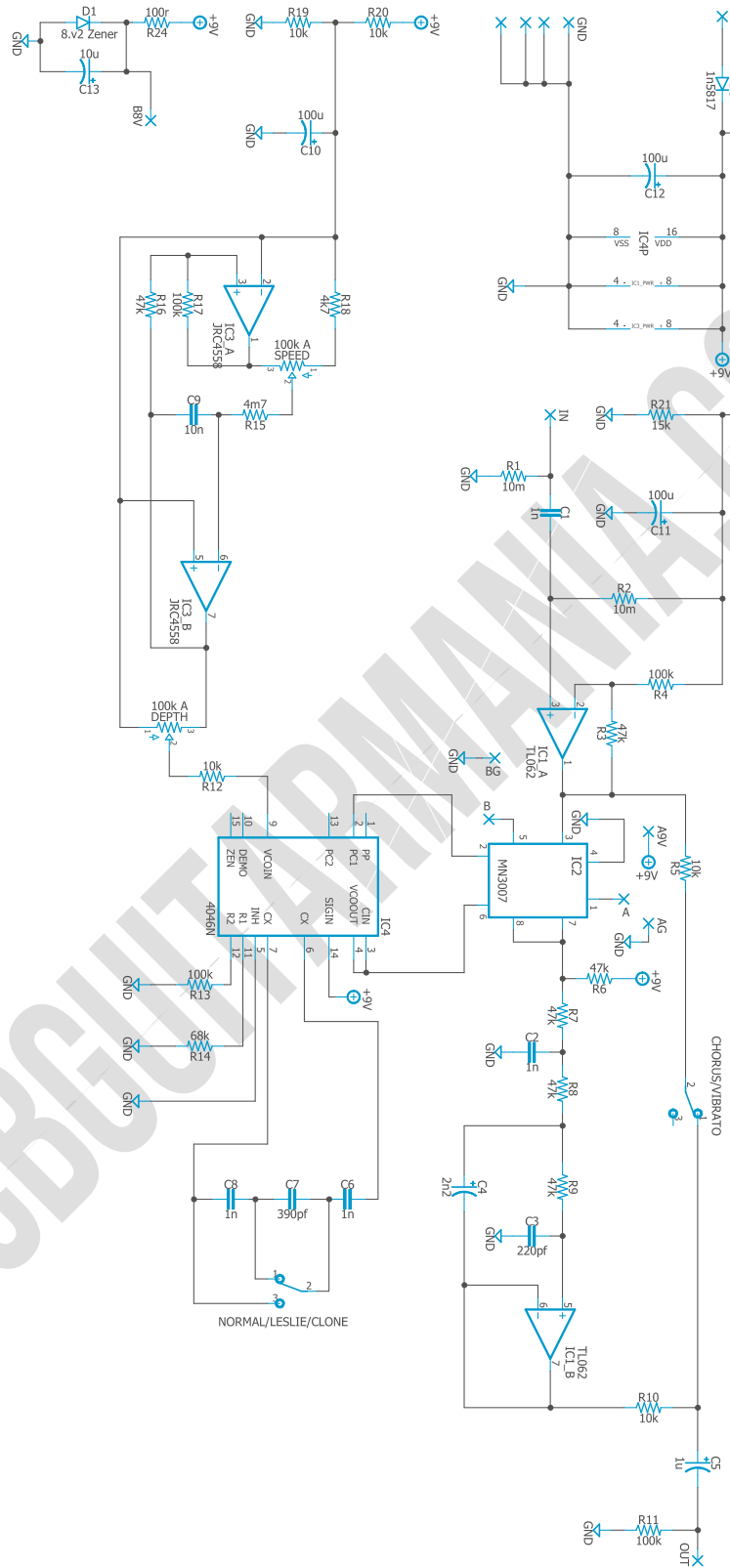
Switches		
Qty	Value	Parts
1	SPDT ON/ON	Chorus/ Vibrato
1	SPDT ON/OFF/ON	Normal/ Leslie/ Clone

Potentiometers		
Qty	Value	Parts
2	100k A	DEPTH, SPEED

IC		
Qty	Value	Parts
1	MN3207/MN3007*	IC2
1	4046N	IC4
1	TL062	IC1
1	JRC4558	IC3

Diodes		
Qty	Value	Parts
1	1n5817	D0
1	8.v2 Zener*	D1
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.

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

MN3007/MN3207* For this project you can choose to use either MN3007 or MN3207, but you have to take in consideration these ICs have different supply pins. Here bellow you have all the details you need to know to use either of them.

MN3007: Place a wire (not a jumper) from pad 'A' to 'A9v'. Place another wire from pad 'B' to 'BG'

MN3207: Place a wire (not a jumper) from pad 'A' to pad 'AG'. Place another wire from pad 'B' to pad 'B8v'. R24, C13 and D1 are in charge of keeping the voltage about 8.2v to feed the MN3207, as it has been reported to work better under 9v. However you can try at your own risk to wire it 'B' to 'A9v' and feed it straight with 9v.

C4:** This capacitor is a regular non polarized 2n2, and not an electrolytic as is on the silkscreen. Proceed to place it independently from polarity.

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!