Mids Obsession

Based on:
JHS Haunting Mids

Amount of parts:
Low, total 35 components

Enclosure type:
125B

Effect type:
Mid-boost

Technology:
Dual OpAmp

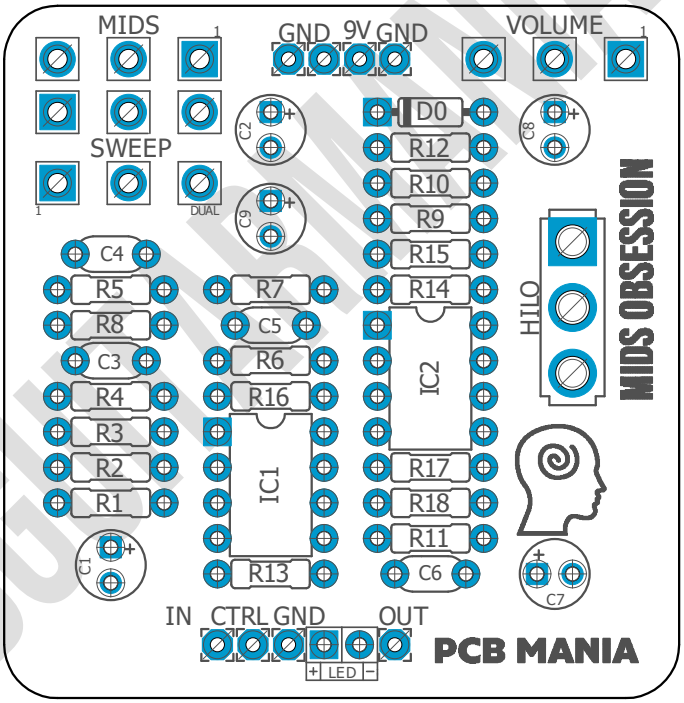
Get your board at:
Mids Obsession

Build difficult:
Average

Power consumption:
9V (10ma)

Get your kit at:
Das Musikding (Europe)

Project overview:
Based on JHS Haunting Mids, this simple, yet extremely sound-defining pedal is a highly versatile tool able to switch up your sound. Metal players will love it for the added sharpness, while blues players can reduce the mids to let highs and lows shine through for sweet leads.



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Introduction

You dreamed of a boost that allows you to cut through the rest of the band even when using different amps here and there or when using different sounds in one show? The JHS haunting Mids ™ is a parametric mid eq and a boost pedal in one small beginner friendly format. It allows you to dial in the mid frequency you are looking for, the amount of it compared to the dry signal and even allows quiet a lot of extra volume. No wonder that this pedal that used to be a limited version now got its fixed place in the row of stomp boxes Josh Scott is selling. What else could you want?

This circuit allows you to ahieve a +15db boost or scoop. The Lo/Hi toggle selects a broad or narrow bell curve. Continuously sweepable midrange center (400Hz–7.5kHz).

Controls

- Volume
- Mids
- Sweep
- HI LO Switch (LO-gentle broad, HI-peaking tight)

Bill of materials

Resistors	
Part	**Value**
R1	1M
R2	470K
R3	4K7
R4	10K
R5	3K3
R6	5K6
R7	6K8
R8	5K6
R9	3K3
R10	10K
R11	4K7
R12	10K
R13	4K7
R14	6K8
R15	6K8
R16	22K
R17	22K
R18	4K7

Capacitors	
Part	**Value**
C3	47p
C4	10n
C5	1n5
C6	47p

Switches	
Part	**Value**
HI LO	SPDT ON-ON

Electrolytics Capacitors	
Part	**Value**
C1	4u7
C2	100u
C7	4u7
C8	10u
C9	10u

Potentiometers	
Part	**Value**
MIDS	B10K
VOLUME	B10K
Sweep	B100K STEREO (DUAL GANG)

IC	
Part	**Value**
IC1	NE5532
IC2	TL072

Diodes	
Part	**Value**
D0	1N5817
LED	3mm LED

Shopping list

Resistors		
Qty	**Value**	**Parts**
3	10K	R4, R10, R12
1	1M	R1
2	22K	R16, R17
2	3K3	R5, R9
1	470K	R2
4	4K7	R3, R11, R13, R18
2	5K6	R6, R8
3	6K8	R7, R14, R15

Capacitors		
Qty	**Value**	**Parts**
1	10n	C4
1	1n5	C5
2	47p	C3, C6

Electrolytics Capacitors		
Qty	**Value**	**Parts**
1	100u	C2
2	10u	C8, C9
2	4u7	C1, C7

Potentiometers		
Qty	**Value**	**Parts**
2	B10K	MIDS, VOLUME
1	100k B Stereo (dual gang)	SWEEP

IC		
Qty	**Value**	**Parts**
1	NE5532	IC1
1	TL072	IC2

Switches		
Qty	**Value**	**Parts**
1	SPDT ON-ON	HI LO

Diodes		
Qty	**Value**	**Parts**
1	1N5817	D0
1	3m LED	LED

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.

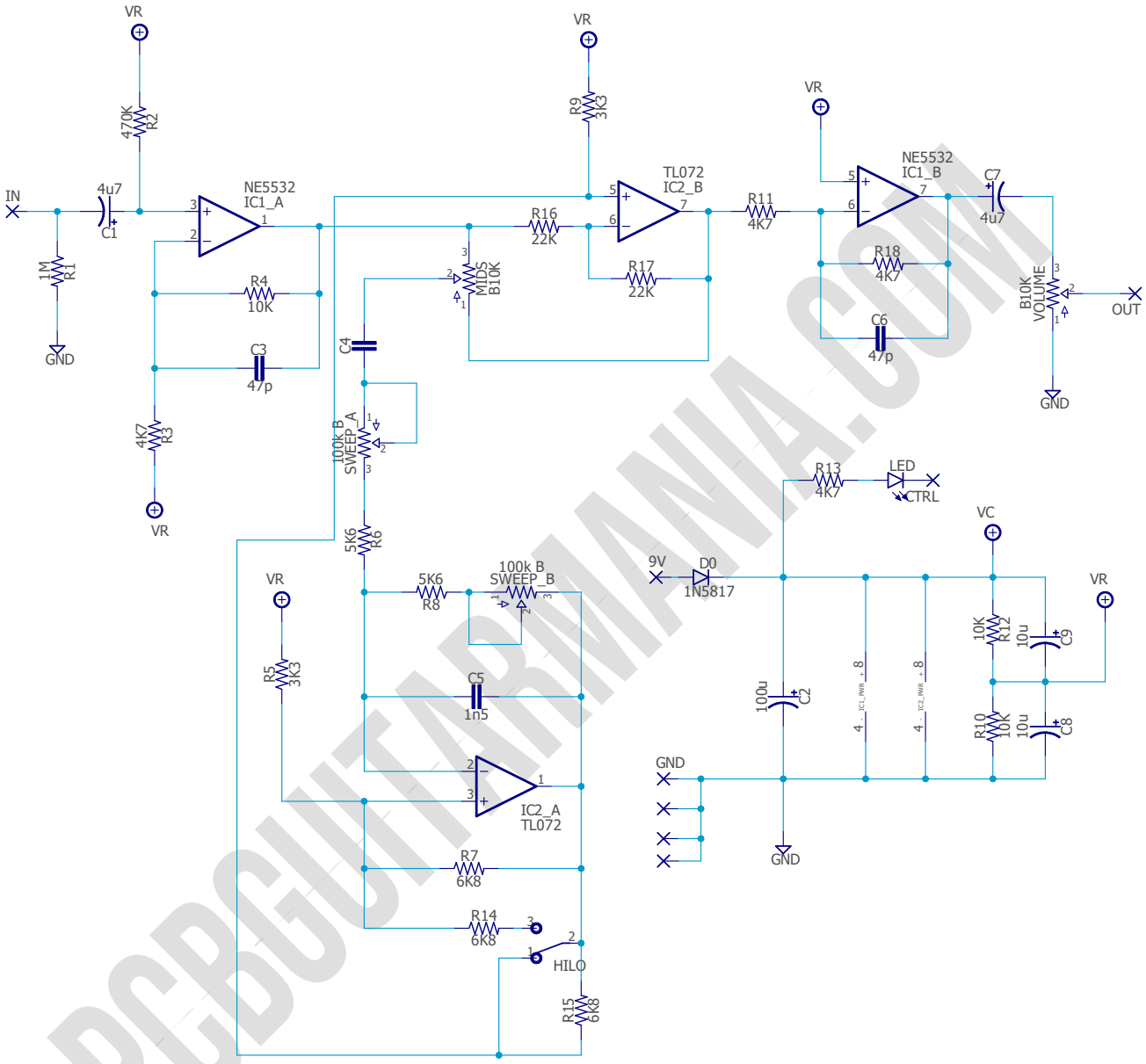
Build Notes

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

Schematic



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 1590bb 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.

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