

Exotic Preamp

Based on:

Xotic BB Preamp

Effect type:

TS type Overdrive

Build difficult:

Average

Amount of parts:

Average, total 56 components

Technology:

Dual OpAmp + Baxandall EQ

Power consumption:

9V(9mA)

Enclosure type:

125b

Get your board at:

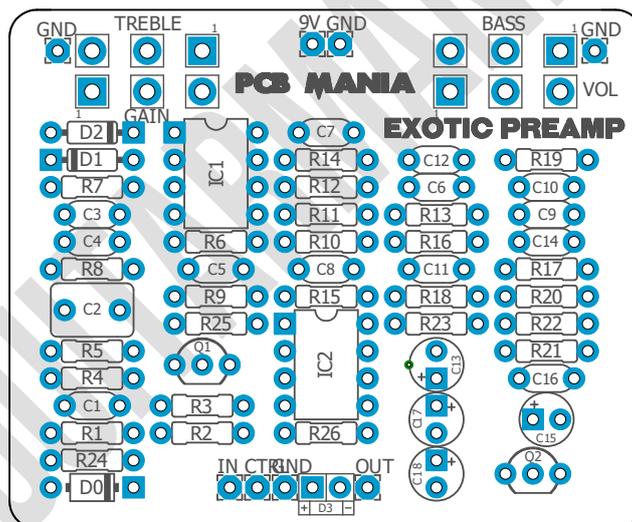
[Exotic Preamp](#)

Get your kit at:

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

Project overview:

Overdrive with roots on the classic TS808 featuring a Baxandall active Bass and Treble control to cut and boost the frequencies you need. This bad boy delivers around 30db boost and it's for sure one of the gainiest TS inspired pedals out there.



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Introduction

From the three Xotic™ Preamp pedals the BB has the most amount of Gain and the biggest amount of Volume push. So it can deliver quiet a lot of clean Boost (around 30db) to drive your amp harder by itself. That's why we proudly choose this one for our first take on this classic designs. This Series are Stompboxes that are out there for a decade now and still can be spot on so many Pedal boards. One reason is for sure its active Bass and Treble EQ, that allows you to cut and boosting frequency's. Another reason is that the BB in the Name stands for Blues Braker, just by the name itself you could hear some creamy lead tones in your head. Didn't you? Is there more to say? Happy building

Controls

- Treble
- Bass
- Vol
- Gain

Bill of material

Resistors	
Part	Value
R1	2m2
R2	1k
R3	470k
R4	10k
R5	10k
R6	1k
R7	10k
R8	4k7
R9	10k
R10	1k
R11	19k
R12	1k
R13	220r
R14	10k
R15	47k
R16	10k
R17	33k
R18	4k7
R19	4k7
R20	470k
R21	10k
R22	47r
R23	100k
R24	10k
R25	10k
R26	4k7

IC	
Part	Value
IC1	TL072
IC2	JRC4558

Transistors	
Part	Value
Q1	2N5088
Q2	2N5088

Electrolytics Capacitors	
Part	Value
C13	10u
C15	10u
C17	100u
C18	47u

Potentiometers	
Part	Value
BASS	50k B
GAIN	1m B
TREBLE	50k B
VOL	100k A

Capacitors	
Part	Value
C1	22n
C2	1u
C3	47p
C4	47n
C5	220n
C6	220n
C7	100n
C8	150p
C9	33n
C10	33n
C11	4n7
C12	4n7
C14	100n
C16	100n

Diodes	
Part	Value
D0	1n5817
D1	1n914
D2	1n914
D3	3mm LED

Shopping list

Resistors		
Qty	Value	Parts
1	100k	R23
9	10k	R4, R5, R7, R9, R14, R16, R21, R24, R25
1	19k	R11
4	1k	R2, R6, R10, R12
1	220r	R13
1	2m2	R1
1	33k	R17
2	470k	R3, R20
1	47k	R15
1	47r	R22
4	4k7	R8, R18, R19, R26

Capacitors		
Qty	Value	Parts
3	100n	C7, C14, C16
1	150p	C8
1	1u	C2
2	220n	C5, C6
1	22n	C1
2	33n	C9, C10
1	47n	C4
1	47p	C3
2	4n7	C11, C12

Electrolytics Capacitors		
Qty	Value	Parts
1	100u	C17
2	10u	C13, C15
1	47u	C18

Potentiometers		
Qty	Value	Parts
1	1m B	GAIN
1	100K A	VOL
2	50k B	BASS, TREBLE

IC		
Qty	Value	Parts
1	TL072	IC1
1	JRC4558	IC2

Transistors		
Qty	Value	Parts
2	2N5088	Q1, Q2

Diodes		
Qty	Value	Parts
2	1n914	D1, D2
1	1n5817	D0
1	LED 3mm	D3

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

On the First version of the board there was an issue with the bass pot working Backwards, you can solve this issue by reversing the connections of the legs 3 and 1 of the bass pot.

If you have received one of these boards please contact us and we will give you an special gift due the inconveniences 😊

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 125b 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!