Cornic Fuzz SMD

Based on:
Pete Cornish NG-2

Effect type:
LPB1 + Muff Fuzz + Fuzz Face

Build difficult:
Easy

Amount of parts:
Low, total 19 components

Technology:
Silicon NPN transistors

Power consumption:
9V

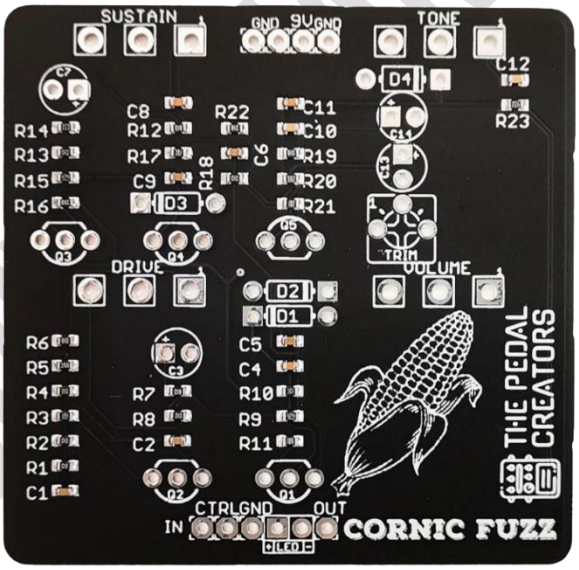
Enclosure type:
125b

Get your board at:
Cornic Fuzz SMD

Get your kit at:
Das Musikding (Europe)

Project overview:

The boutique fuzz that covers that will make you feel you are dialing your classic fuzz on 15 rather than 10. This circuit combines the best of LPB1, Big muff, and Fuzz Face to create its unique "Imminent Amp Death" sound.



About The Pedal Creators

Everyone can build excellent boutique guitar **pedals**.
Everything **we do** is to make that **experience** more accessible and **user-friendlier.**
The **Pedal Creators** series are the **best and easiest to build PCB**s ever. Including most **resistors** and **capacitors** already **soldered** on board as SMD components, leaving the key values for you to **experiment** and craft **your own tone**.
Now you can **build** a pedal you are **proud** of in **less than an hour** without any previous experience.
What are you waiting for to **become a Pedal Creator?**

The Pedal creators - key features:

- **Easy to build,** no previous experience required. It's like Lego for musicians.
- **Fast assembly** finish a pedal in less than an hour. Play your favorite record and enjoy the ride along.
- **100% mistake-proof**. Even my grandma can build one while she cooks.
- **Build** your own boutique pedal. Experiment with different values and make the **pedal you always dreamed of.**
- Easy to scale. **Turn your passion into a money-making machine**.

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Introduction

If you are into pedal building and guitar effects in general for sure, you love to experiment with stacking fuzzes, overdrives, boosts, and drives to create your own trademark sound, don't you?
Have you ever tried stacking Big Muff between a booster and a fuzz face? If you did you found how insanely cool, loud, and saturated it could get, but it is an issue to dial-up and carry it around, plus not always all these pedals will get along together.

Pete Cornish addressed this issue, making a unique fuzz that delivers a thick creamy, saturated fuzz while keeping an original feel and taking distance from other boutique muffs such as the **Black musket** or **Pharaoh deluxe**.

For this model, we recommend you try different diodes for D1 and D2; leaving them empty can really turn this muff into a real doom machine! Another interesting idea would be to try some NPN germanium transistors for the Fuzz Face section, Q4, and Q5. For the Muff and boost section, I'd rather stick to stock ones as it won't have such an impact on the overall tone.

Controls

- DRIVE
- SUSTAIN
- TONE
- VOLUME

Bill of material

Electrolytics Capacitors	
Part	**Value**
C3	22u
C7	4u7
C13	10u
C14	100u

Potentiometers	
Part	**Value**
DRIVE	100k A
SUSTAIN	50k A
TONE	100k B
VOLUME	100k B

Trimpots	
Part	**Value**
TRIM	50k

Transistors	
Part	**Value**
Q1	BC549C
Q2	BC549C
Q3	BC549C
Q4*	BC550
Q5*	BC549C

Diods	
Part	**Value**
D0	1n5817
D1	1n34a
D2	1n34a
D3	1n914
LED	3mm Red LED

Shopping list

Electrolytics Capacitors		
Qty	**Value**	**Parts**
1	100u	C14
1	10u	C13
1	22u	C3
1	4u7	C7

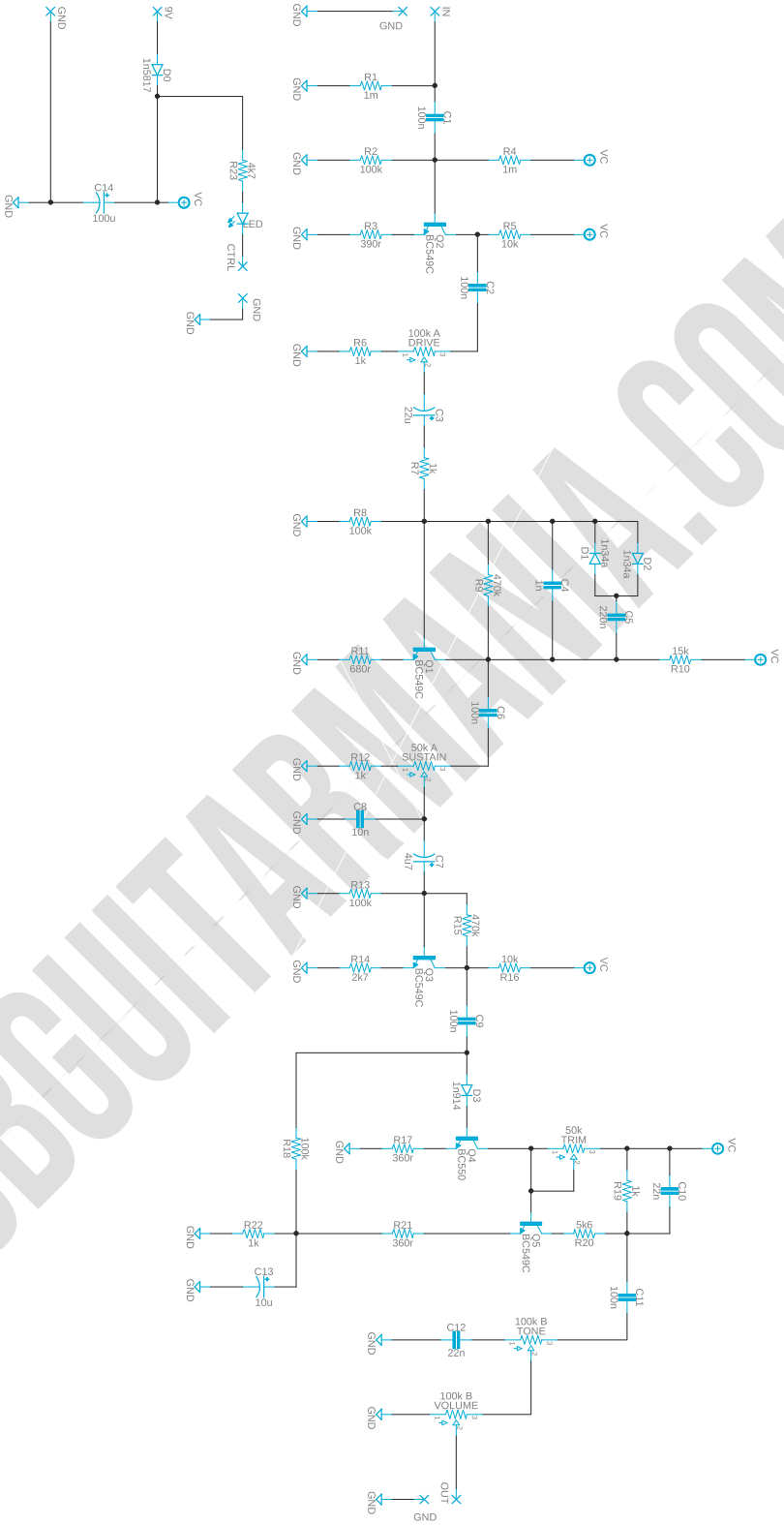
Potentiometers		
Qty	**Value**	**Parts**
1	100k A	DRIVE
2	100k B	TONE, VOLUME
1	50k A	SUSTAIN

Trimpots		
Qty	**Value**	**Parts**
1	50k	TRIM

Transistors		
Qty	**Value**	**Parts**
4	BC549C	Q1, Q2, Q3, **Q5***
1	BC550	**Q4***

Diods		
Qty	**Value**	**Parts**
2	1n34a	D1, D2
1	1n5817	D0
1	1n914	D3
1	3mm Red LED	LED

Schematic



Components Recommendations

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 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

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. Electrolytic capacitors (always check the polarity)
2. Transistors
3. Wires
4. Potentiometers and switches
5. Off-board wiring

Try different diodes, especially no diodes at all.

Germanium transistors for **Q4*** and **Q5***.

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.

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