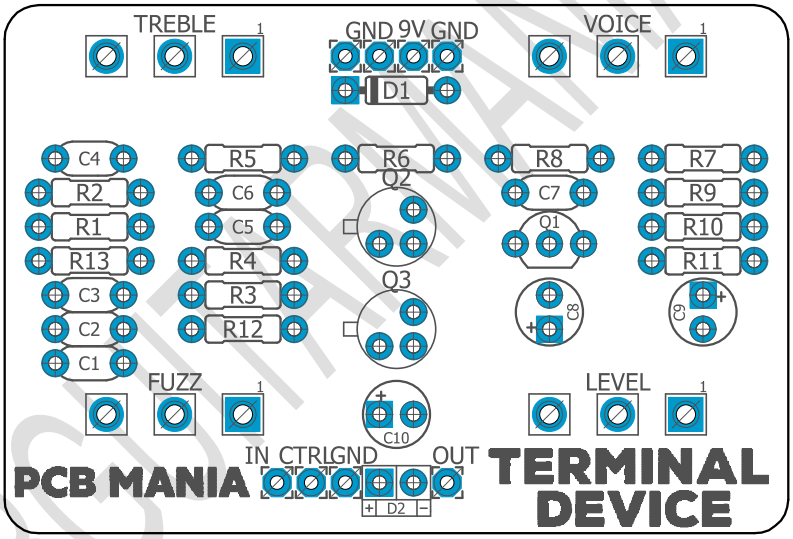
Terminal Device

Based on:
EQD Terminal Fuzz
Effect type:
Unique Fuzz
Build difficult:
Easy

Number of parts:
Low, total 37 components
Technology:
Silicon transistors
Power consumption:
9V

Enclosure type:
125b
Get your board at:
Terminal Device
Get your kit at:
Das Musikding (Europe)

Project overview:
Get a wide range of muffled, busted, and destructive fuzz sounds typical of an old JAX fuzz, with four interactive controls that will give you the exact tone you want.



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Introduction

Terminal Device is inspired by the Earthquaker Devices Terminal Fuzz, a highly modified Shin-Ei Companion Fuzz. This board offers both the unique buzzy sound of an old JAX fuzz and modern features that allow more in the way of control.

The 60s and 70s were the golden time for many quite distinctive fuzzes, and I'm not talking only about big names such as Fuzz Face and Tone Bende. If you dig a little, you will find that there were many unique gems, now discontinued.

Terminal Device is based on one of that rare pedals. The exceptional buzzy sound of the original board is fantastic. Still, the modifications make this design go three steps further by adding a pot at input that regulates the amount of signal being fed to the circuit, a controllable tone stack, and an output gain stage after the volume control to get the fuzz above unity volume.

Controls

Potentiometers

- Fuzz
- Level
- Treble
- Voice

Bill of materials

Resistors	
Part	**Value**
R1	2m2
R2	22k
R3	1m
R4	47k
R5	10k
R6	15k
R7	47k
R8	470k
R9	470r
R10	10k
R11	100k
R12	4k7
R13	1m

Capacitors	
Part	**Value**
C1	100n
C2	1n
C3	**47n***
C4	2n2
C5	3n3
C6	1n
C7	100n

Electrolytics Capacitors	
Part	**Value**
C8	10u
C9	10u
C10	100u

Potentiometers	
Part	**Value**
FUZZ	100K B
LEVEL	50K B
TREBLE	50K B
VOICE	10K B

Transistors	
Part	**Value**
Q1	2N3904
Q2	2N2369
Q3	2N2369

Switches	
Part	**Value**
-	3PDT Stomp foot

Diodes	
Part	**Value**
D1	1n5817
D2	3mm red LED

Jacks	
Part	**Value**
-	DC JACK
-	AUDIO JACK
-	AUDIO JACK

Shopping list

Resistors		
Qty	**Value**	**Parts**
1	100k	R11
2	10k	R5, R10
1	15k	R6
2	1m	R3, R13
1	22k	R2
1	2m2	R1
1	470k	R8
1	470r	R9
2	47k	R4, R7
1	4k7	R12

Capacitors		
Qty	**Value**	**Parts**
2	100n	C1, C7
2	1n	C2, C6
1	2n2	C4
1	3n3	C5
1	**47n***	C3

Electrolytics Capacitors		
Qty	**Value**	**Parts**
1	100u	C10
2	10u	C8, C9

Potentiometers		
Qty	**Value**	**Parts**
1	10K B	VOICE
1	100K B	FUZZ
2	50K B	LEVEL, TREBLE

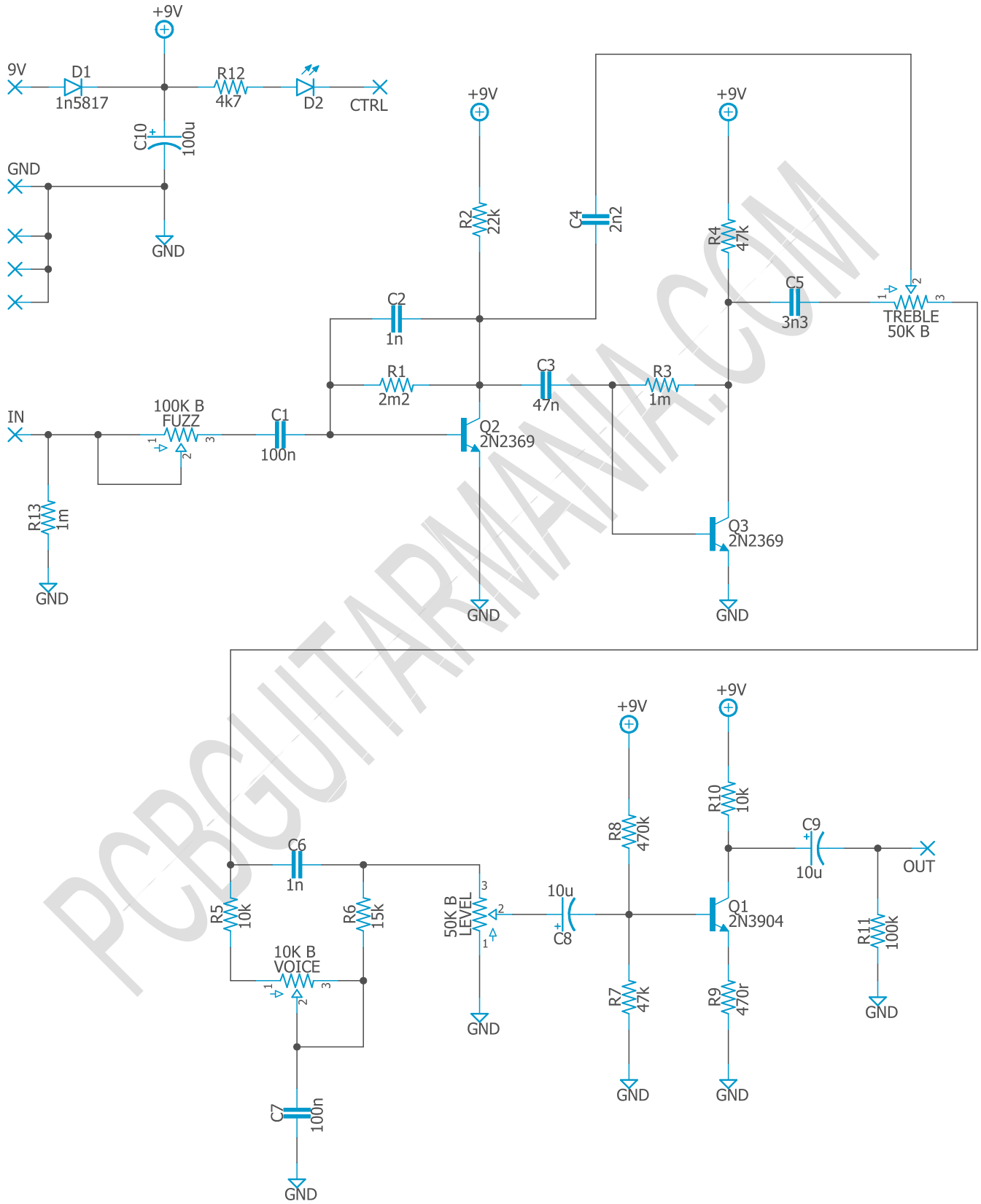
Transistors		
Qty	**Value**	**Parts**
2	2N2369	Q2, Q3
1	2N3904	Q1

Switches		
Qty	**Value**	**Parts**
1	3PDT Stomp foot	-

Diodes		
Qty	**Value**	**Parts**
1	1n5817	D1
1	3mm red LED	D2

Jacks		
Qty	**Value**	**Parts**
1	DC JACK	-
2	AUDIO JACK	-

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 of the 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. 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

C3 - 47n*

Changing C3 from 47n to 4n7 lowers the amount of gain and gives as a result a drive pedal that differs from the original Terminal Fuzz. Choose between 4n7 and 47n according to your preference.

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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