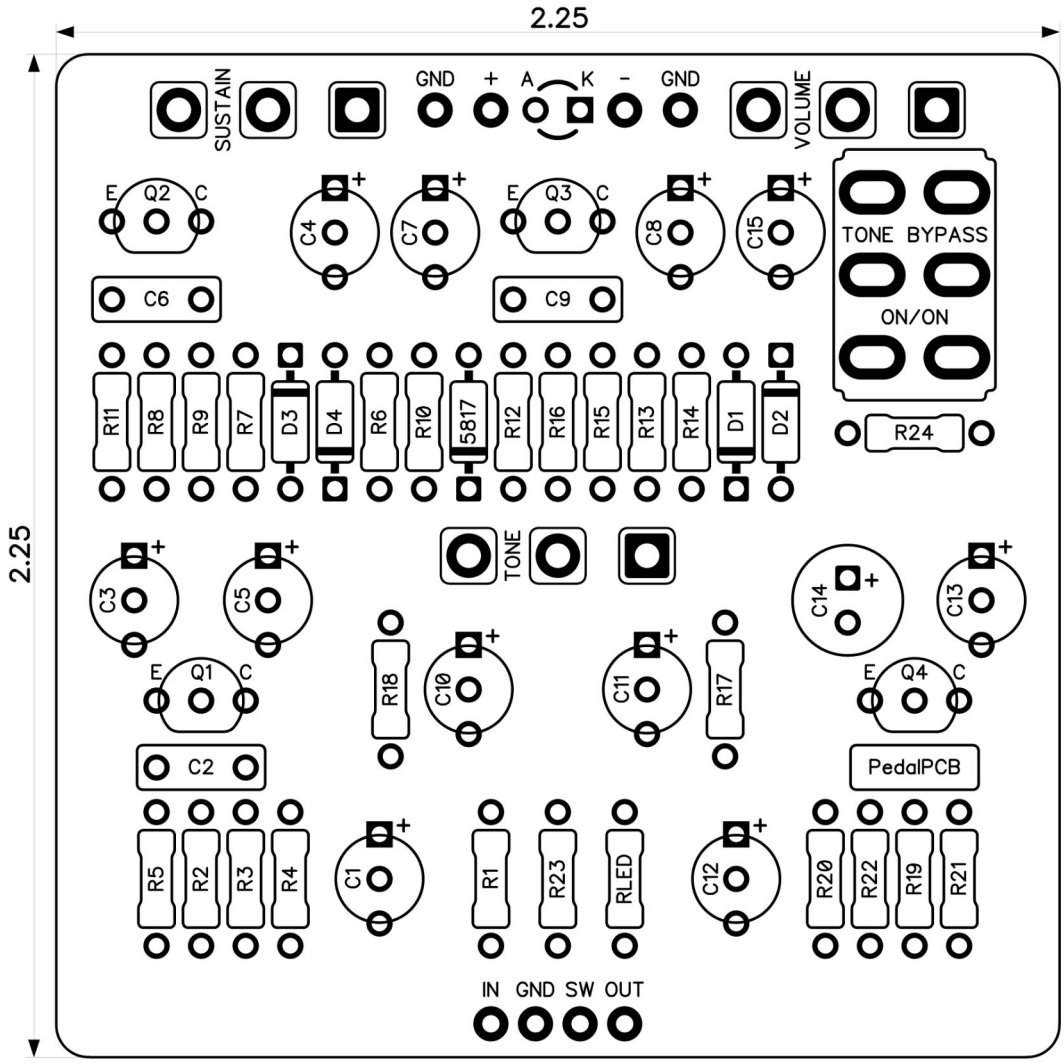
Muffin Fuzz

Revised 6/14/25



CONTROLS AND FEATURES

- **Volume**
- **Tone**
- **Sustain**

- **Tone Bypass Switch (Optional)**

Muffin Fuzz

Tone Bypass Switch

Tone Bypass Switch Option

The Muffin Fuzz PCB provides an option for a Tone Bypass switch, allowing users to select between the classic tone stack and a direct bypass for a more raw sound. If the Tone Bypass switch is not desired, the circuit can be hard-wired for either mode by using a pair of jumper wires and, in some cases, a level-matching resistor (R24).

R24 was originally included in the circuit to maintain a uniform signal level when switching the tone control section on and off, preventing noticeable volume jumps between modes. R24 is retained in the design for circuit accuracy and to preserve the intended performance and tonal characteristics of the original circuit.

The Tone Bypass switch can be added to (or omitted from) any Muffin variant by following the steps below.

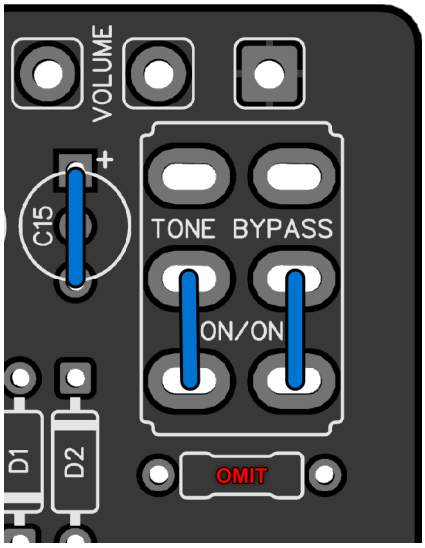
Tone Control Permanently Active

To permanently **enable** the tone control section, simply **connect jumper wires across the lower two switch pads as shown**.

R24 should be omitted entirely—do not install a resistor or jumper in its place.

C15 should be substituted with a jumper wire.

With this configuration the tone control is always active, delivering the classic Muffin Fuzz tonal shaping.



Tone Control Permanently Bypassed

To permanently **bypass** the tone control section, **connect jumper wires across the lower two switch pads as shown**.

R24 should be installed in its designated location. The value of R24 varies slightly by circuit variant but a value of 150K to 160K is typical.

C15 should be substituted with a jumper wire.

This configuration routes the signal directly, bypassing the tone control and producing a louder, more unfiltered fuzz sound characteristic of the original bypass mod.

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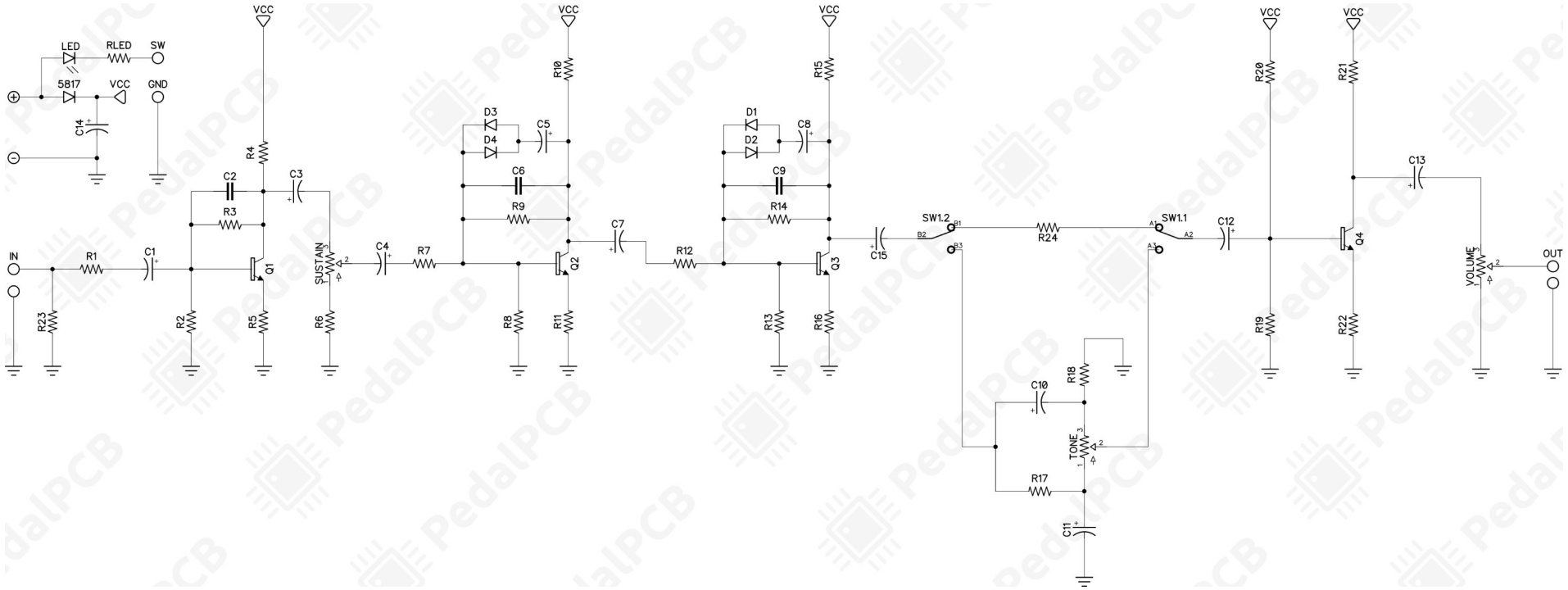
Schematic Diagram



D4

Muffin Fuzz

Bill of Materials

Green Russian			
R1	39K	C1	100nF
R2	100K	C2	470pF
R3	470K	C3	100nF
R4	12K	C4	100nF
R5	390	C5	47nF
R6	1K	C6	470pF
R7	10K	C7	100nF
R8	100K	C8	47nF
R9	470K	C9	470pF
R10	12K	C10	3.9nF
R11	390R	C11	10nF
R12	10K	C12	100nF
R13	100K	C13	100nF
R14	470K	C14	100uF
R15	12K	C15	100nF
R16	390R		
R17	20K	Q1	2N5088
R18	22K	Q2	2N5088
R19	100K	Q3	2N5088
R20	470K	Q4	2N5088
R21	10K		
R22	2K	D1	1N914
R23	1M	D2	1N914
R24	150K	D3	1N914
		D4	1N914

SUSTAIN	B100K
TONE	B100K
VOLUME	B100K
TONE BYPASS SWITCH	DPDT ON/ON

Civil War			
R1	39K	C1	100nF
R2	100K	C2	430pF
R3	470K	C3	100nF
R4	12K	C4	100nF
R5	390R	C5	47nF
R6	1K	C6	430pF
R7	10K	C7	100nF
R8	100K	C8	47nF
R9	470K	C9	430pF
R10	12K	C10	3.9nF
R11	390R	C11	10nF
R12	10K	C12	100nF
R13	100K	C13	100nF
R14	470K	C14	100uF
R15	12K	C15	100nF
R16	390R		
R17	20K	Q1	2N5088
R18	22K	Q2	2N5088
R19	100K	Q3	2N5088
R20	470K	Q4	2N5088
R21	10K		
R22	2.7K	D1	1N914
R23	1M	D2	1N914
R24	150K	D3	1N914
		D4	1N914

SUSTAIN	B100K
TONE	B100K
VOLUME	B100K
TONE BYPASS SWITCH	DPDT ON/ON

Triangle			
R1	3.3K	C1	100nF
R2	82K	C2	N/A
R3	390K	C3	100nF
R4	22K	C4	100nF
R5	820R	C5	50nF
R6	1K	C6	560pF
R7	8.2K	C7	100nF
R8	N/A	C8	50nF
R9	390K	C9	560pF
R10	12K	C10	4nF
R11	150R	C11	10nF
R12	8.2K	C12	100nF
R13	82K	C13	100nF
R14	390K	C14	100uF
R15	22K	C15	100nF
R16	820R		
R17	39K	Q1	2N5088
R18	39K	Q2	2N5088
R19	100K	Q3	2N5088
R20	390K	Q4	2N5088
R21	12K		
R22	2.7K	D1	1N914
R23	1M	D2	1N914
R24	150K	D3	1N914
		D4	1N914

SUSTAIN	B100K
TONE	B100K
VOLUME	B100K
TONE BYPASS SWITCH	DPDT ON/ON

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Bill of Materials

Chelsea			
R1	39K	C1	1uF
R2	100K	C2	470pF
R3	470K	C3	68nF
R4	15K	C4	68nF
R5	100R	C5	2.2uF
R6	1K	C6	470pF
R7	10K	C7	100nF
R8	100K	C8	2.2uF
R9	470K	C9	560pF
R10	15K	C10	3.9nF
R11	100R	C11	10nF
R12	10K	C12	100nF
R13	100K	C13	1uF
R14	470K	C14	100uF
R15	15K	C15	100nF
R16	100R		
R17	39K	Q1	2N3904
R18	22K	Q2	2N3904
R19	100K	Q3	2N3904
R20	390K	Q4	2N3904
R21	10K		
R22	2K2	D1	1N4006
R23	1M	D2	1N4006
R24	160K	D3	1N4006
		D4	1N4006
SUSTAIN			B100K
TONE			B100K
VOLUME			B10K
TONE BYPASS SWITCH			DPDT ON/ON

Emanating Fist Dope Priest			
R1	33K	C1	100nF
R2	100K	C2	560p
R3	470K	C3	100nF
R4	10K	C4	100nF
R5	470R	C5	1u
R6	1K	C6	560p
R7	10K	C7	100n
R8	100K	C8	1u
R9	470K	C9	560p
R10	10K	C10	4n7
R11	150R	C11	10n
R12	10K	C12	100nF
R13	100K	C13	100nF
R14	470K	C14	100uF
R15	10K	C15	100nF
R16	150R		
R17	33K	Q1	BC549C*
R18	33K	Q2	BC549C*
R19	100K	Q3	BC549C*
R20	470K	Q4	BC549C*
R21	10K		
R22	2K7	D1	1N914
R23	1M	D2	1N914
R24	160K	D3	1N914
		D4	1N914
SUSTAIN			B100K
TONE			B100K
VOLUME			B100K
TONE BYPASS SWITCH			DPDT ON/ON

Bigger Muff			
R1	33K	C1	10uF
R2	100K	C2	47pF
R3	470K	C3	100nF
R4	12K	C4	100nF
R5	100R	C5	100nF
R6	8.2K	C6	47pF
R7	10K	C7	10uF
R8	100K	C8	100nF
R9	470K	C9	47pF
R10	12K	C10	4.7nF
R11	100R	C11	10nF
R12	10K	C12	100nF
R13	100K	C13	10uF
R14	470K	C14	N/A
R15	12K	C15	100nF
R16	100R		
R17	33K	Q1	2N706A
R18	33K	Q2	2N706A
R19	100K	Q3	2N706A
R20	510K	Q4	2N706A
R21	12K		
R22	3.3K	D1	1N4148
R23	1M	D2	1N4148
R24	160K	D3	1N4148
		D4	1N4148
SUSTAIN			B100K
TONE			B100K
VOLUME			B100K
TONE BYPASS SWITCH			DPDT ON/ON

***BC549C must be installed backwards**

PedalPCB

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Bill of Materials

SUF '75

R1	33K	C1	100nF
R2	100K	C2	470pF
R3	470K	C3	100nF
R4	12K	C4	100nF
R5	100R	C5	100nF
R6	1K	C6	470pF
R7	8.2K	C7	100nF
R8	100K	C8	100nF
R9	470K	C9	470pF
R10	12K	C10	3.9nF
R11	100R	C11	100nF
R12	8.2K	C12	10nF
R13	100K	C13	100nF
R14	470K	C14	100uF
R15	12K	C15	100nF
R16	100R		
R17	33K	Q1	2N5088
R18	33K	Q2	2N5088
R19	100K	Q3	2N5088
R20	470K	Q4	2N5088
R21	12K		
R22	4.7K	D1	1N4148
R23	1M	D2	1N4148
R24	160K	D3	1N4148
		D4	1N4148

SUSTAIN	B100K
TONE	B100K
VOLUME	B100K
TONE BYPASS SWITCH	DPDT ON/ON

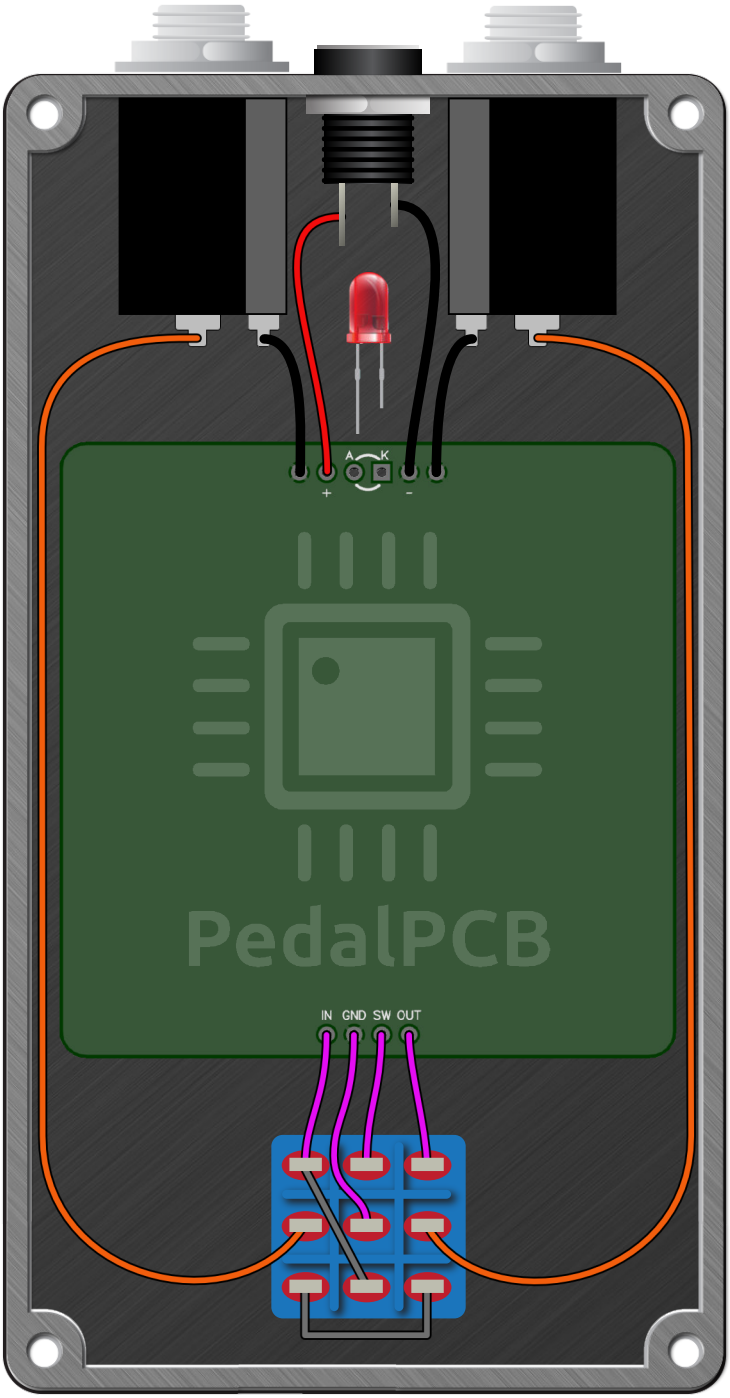
SUF Mascis Muff

R1	39K	C1	1uF
R2	100K	C2	470pF
R3	470K	C3	100nF
R4	15K	C4	100nF
R5	100R	C5	1uF
R6	1K	C6	470pF
R7	8.2K	C7	100nF
R8	100K	C8	1uF
R9	470K	C9	470pF
R10	15K	C10	4.7nF
R11	100R	C11	10nF
R12	8.2K	C12	100nF
R13	100K	C13	1uF
R14	470K	C14	100uF
R15	15K	C15	100nF
R16	100R		
R17	39K	Q1	2N5088
R18	22K	Q2	2N5088
R19	100K	Q3	2N5088
R20	430K	Q4	2N5088
R21	10K		
R22	3.3K	D1	1N4148
R23	1M	D2	1N4148
R24	160K	D3	1N4148
		D4	1N4148

SUSTAIN	B100K
TONE	B100K
VOLUME	B100K
TONE BYPASS SWITCH	DPDT ON/ON

Muffin Fuzz

Wiring Diagram



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Drill Template

125B Enclosure