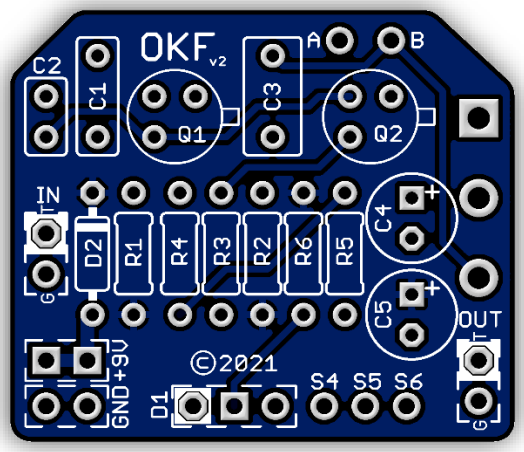
One-Knob Fuzz v2 2021

Based on the classic Colorsound "Fuzz Box" of the 60's with a huge influence on both 70's and Doom style Fuzz tones. This circuit is a great beginner build and deserves a place on your pedal board!



Board Dimensions: 1.2 x 1.075 inches, 30.5 x 27.3 mm.

Part	Value
R1	10k
R2	820R
R3	2k2
R4	150k
R5	1k
R6	1k8
C1	100n
C2	220p

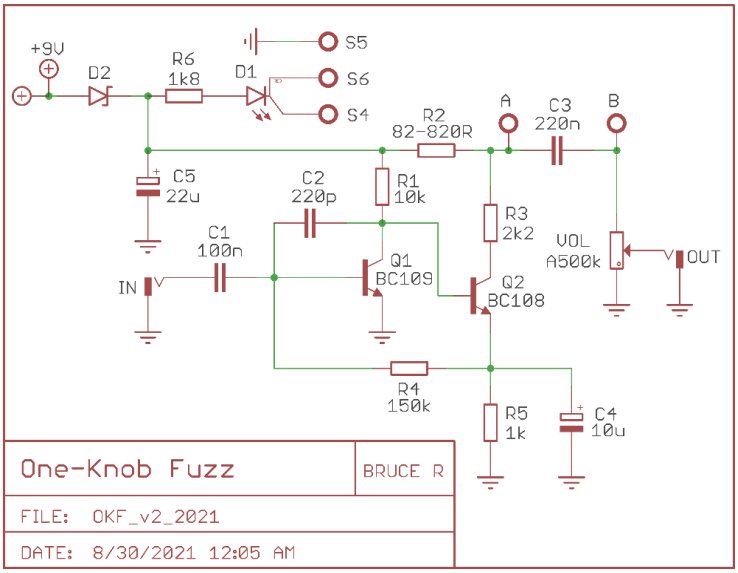
Part	Value
C3	220n
C4	10u
C5	22u
D1	Status LED
D2	1N5817
VOL	A500k
Q1	BC109
Q2	BC108

STATUS LED

***D1** is a Status LED that can be either a Bi-Color Common Anode or a Standard On/Off LED. (See Tip Sheet)

New in this GuitarPCB 2021 version release:

- Added 1N5817 circuit protection diode which is superior.
- Larger off-board wiring pads.
- Added extra +9v and Ground pads for “Combo Builds” allowing easy wiring options and connectivity.



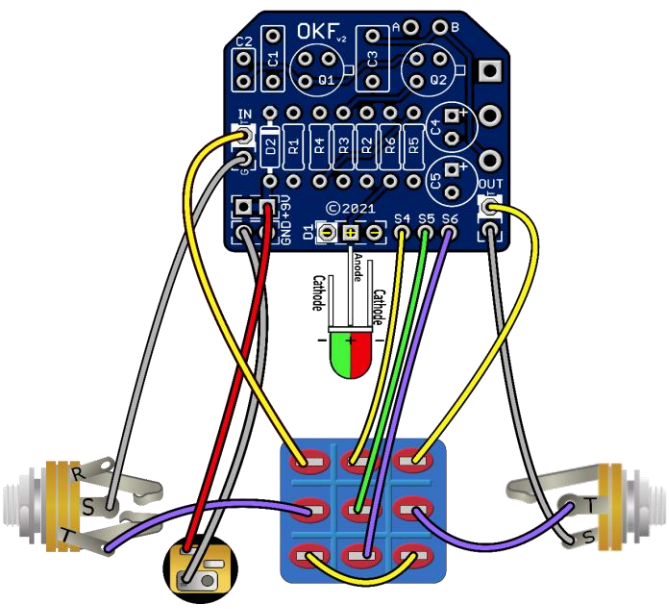
Build Notes:

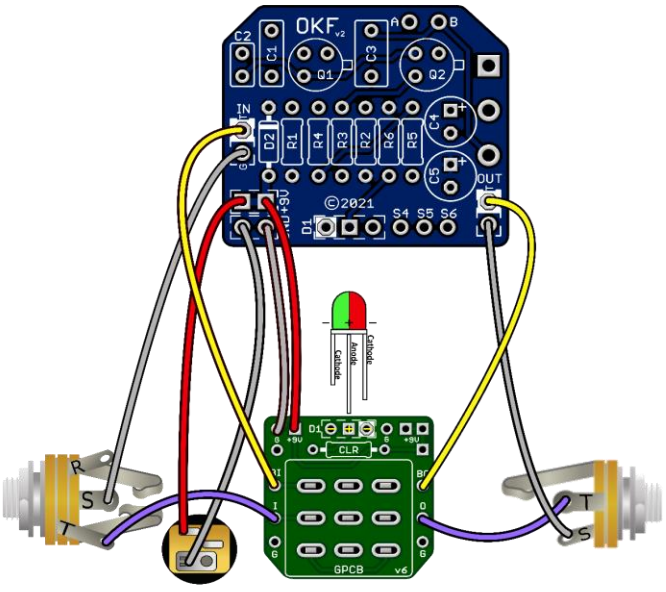
With regard to R2 resistor you can also use a 1k ohm if you don't have 820 ohms. The difference is minor.
Feel free to experiment with these transistor options: BC337, 2N5088, 2N5089, 2N4401, 2N3904 or 2N222.

A/B pads are for optionally adding a Tight switch. Try using 220n and 22n on one of our DPDT wiring boards.

The transistor type for this project is TO-18. The TO-5 sockets at GuitarPCB.com will not work with this board.

Wiring diagram

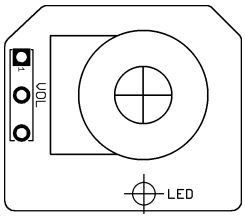




*STATUS LED

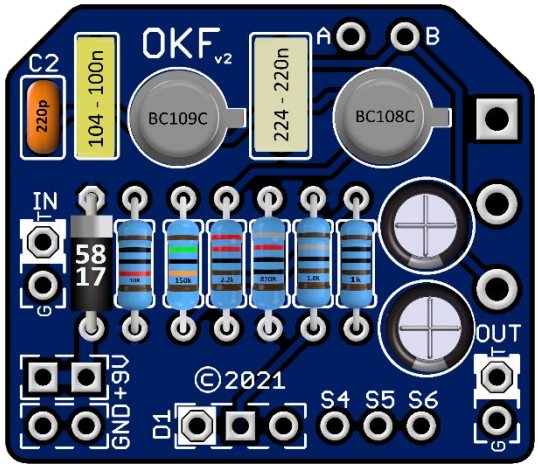
Note: If you are using our 3PDT board, you should omit wires and parts from S4, S5 & S6, D1 and R6 (CLR).

The CLR and LED will be populated on the 3PDT board instead.



Drill Tips: Measure your components before selecting a drill bit. We recommend drilling the pot holes, mounting the pots in the enclosure, and then soldering the pots to the board. This approach should resolve the issue of the pots not fitting through the holes after soldering. We also recommend you make the holes for the pots a little larger than the threads in case you decide to remove the board and put it back in during the build, to avoid problems. Use this guide at your own risk. Make sure page scaling is turned off when you print this PDF, or the image above may be smaller than expected. Verify everything before drilling.

Populated Board Image for Troubleshooting



For more build guides and tutorials please visit the Guides Page at GuitarPCB.com

For specific build support please visit our dedicated Support Forum

Soldering Tutorial on YouTube

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- **Europe – Das Musikding Order either boards or kits direct from Europe.**
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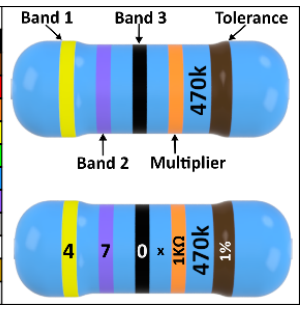
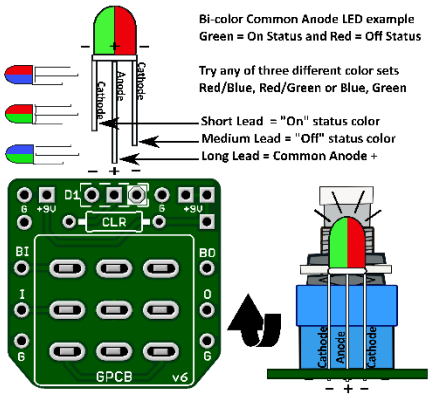
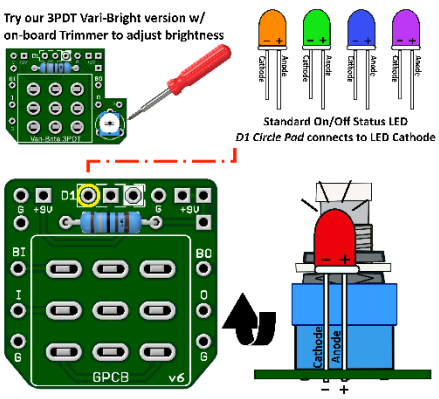
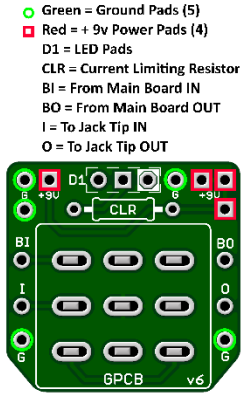
COLOR	1st Band	2nd Band	3rd Band	Multiplier	Tolerance
BLACK	0	0	0	1Ω	
BROWN	1	1	1	10Ω	±1%
RED	2	2	2	100Ω	±2%
ORANGE	3	3	3	1KΩ	
YELLOW	4	4	4	10KΩ	
GREEN	5	5	5	100KΩ	±0.5%
BLUE	6	6	6	1MΩ	±0.25%
VIOLET	7	7	7	10MΩ	±0.10%
GREY	8	8	8	100MΩ	±0.05%
WHITE	9	9	9	1GΩ	
GOLD				0.1Ω	±5%
SILVER				0.01Ω	±10%

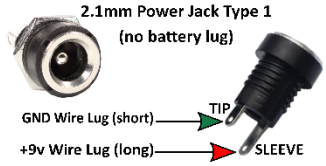


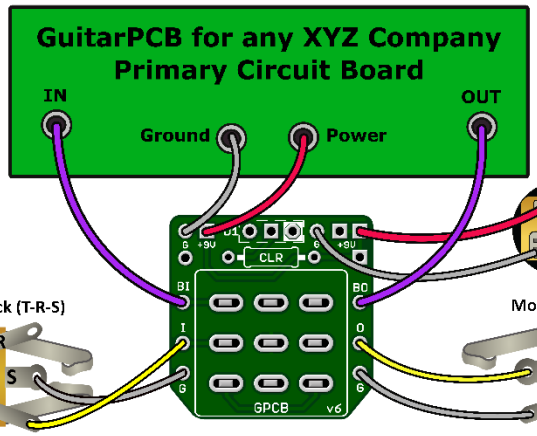
GuitarPCB Tip Sheet

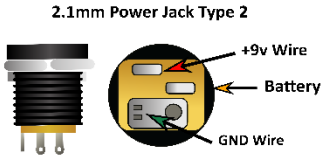








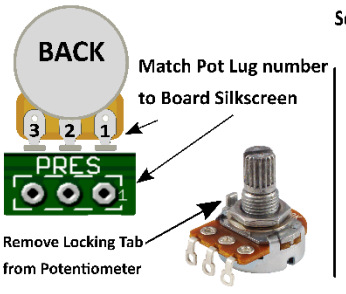




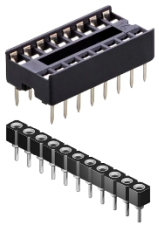
T = Tip
R = Ring
S = Sleeve

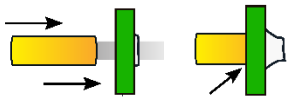
T = Tip
S = Sleeve

Multiple +9v and Ground Pads are convenient hookup points for additional circuits within the same enclosure. This also allows for diverse wiring schemes to suit indiviual needs.



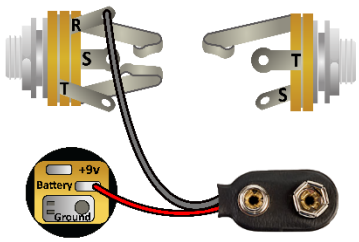
Sockets make troubleshooting easier





When soldering wire to a PCB push the protective PVC jacket flush with the board and pad.

Main Board IN/OUT Pads



Input/Output Jack Wiring

T = Tip | R = Ring | S = Sleeve

A Stereo Jack is only needed if using a Battery. Otherwise use a Mono Jack
Battery Strap RED wire is connected to Power Jack
Battery Strap Black wire is connected to RING (stereo jack)
If wiring an LED to our 3PDT Wiring Board then S4, S5 & S6 are not needed