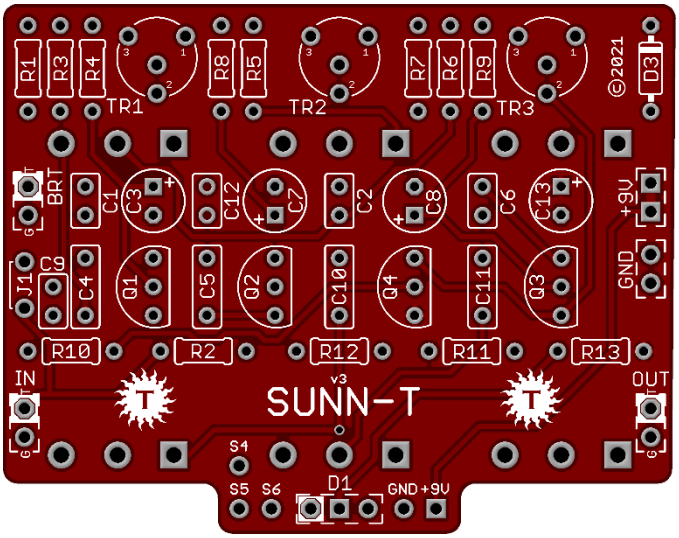
Sunn-T v3 2021

Remember the classic SUNN™ Model-T amp? Now you can recreate the sound that was a trademark of this famous amp. Unlike, the giant one knob pedal, our design is based on the original schematic. It also features the same dual channel configuration that lets you use any degree of either channel or blend the two together.



Board Dimensions (W x H) 2.35” x 1.85”

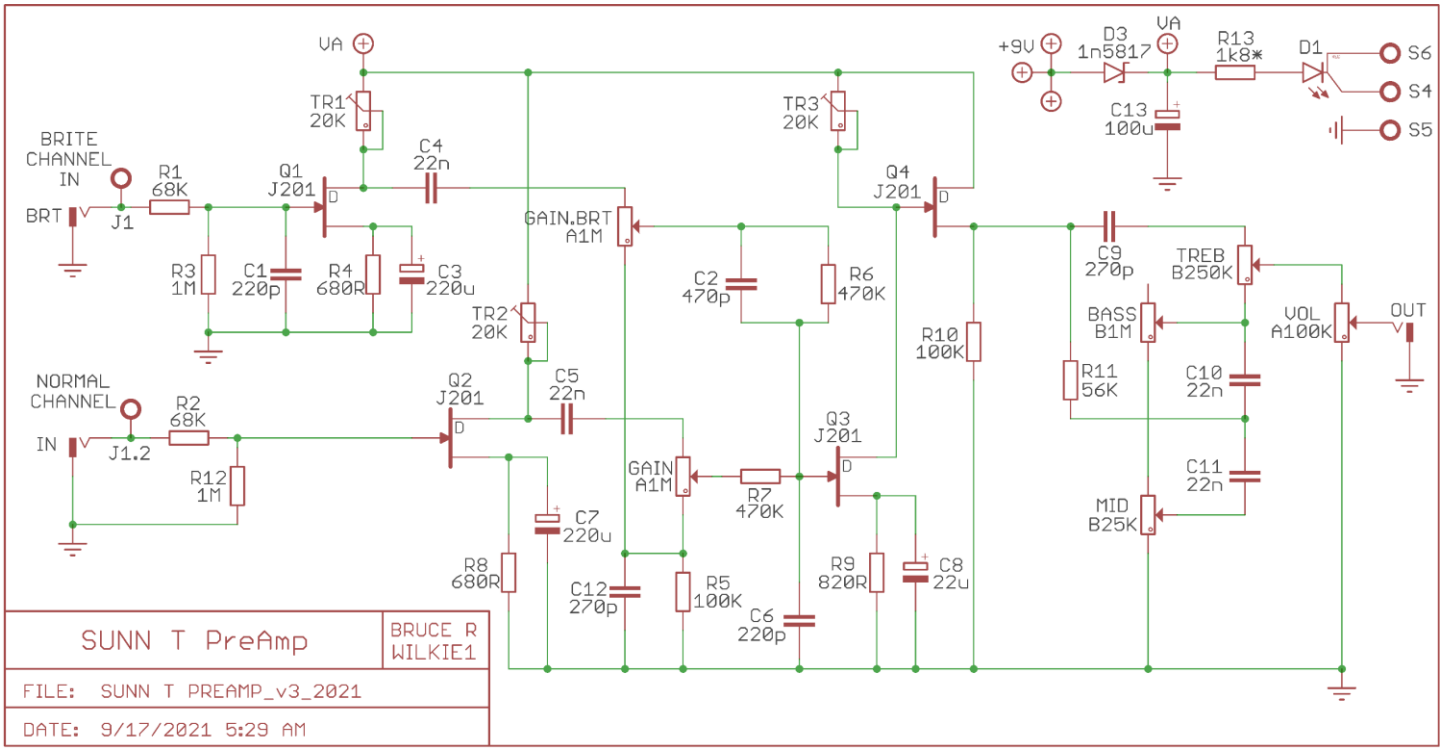
Part	Value		Part	Value		Part	Value
R1	68K		C1	220p		VOL	A100K
R2	68K		C2	470p		GAIN	A1M
R3	1M		C3	220u		GAIN.BRT	A1M
R4	680R		C4	22n		BASS	B1M
R5	100K		C5	22n		MID	B25K
R6	470K		C6	220p		TREB	B250K
R7	470K		C7	220u			
R8	680R		C8	22u		Q1 - Q4	J201
R9	820R		C9	270p			
R10	100K		C10	22n		TR1 - TR3	20K
R11	56K		C11	22n			
R12	1M		C12	270p		D1	Status LED
R13	1k8*		C13	100u		D3	1n5817

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)
Note: There is no D2 intentionally. D1 and D3 only.

New in this GuitarPCB 2021 version release:

- Added 1N5817 circuit protection diode.
- Added all on-board potentiometers and larger off-board wiring pads.



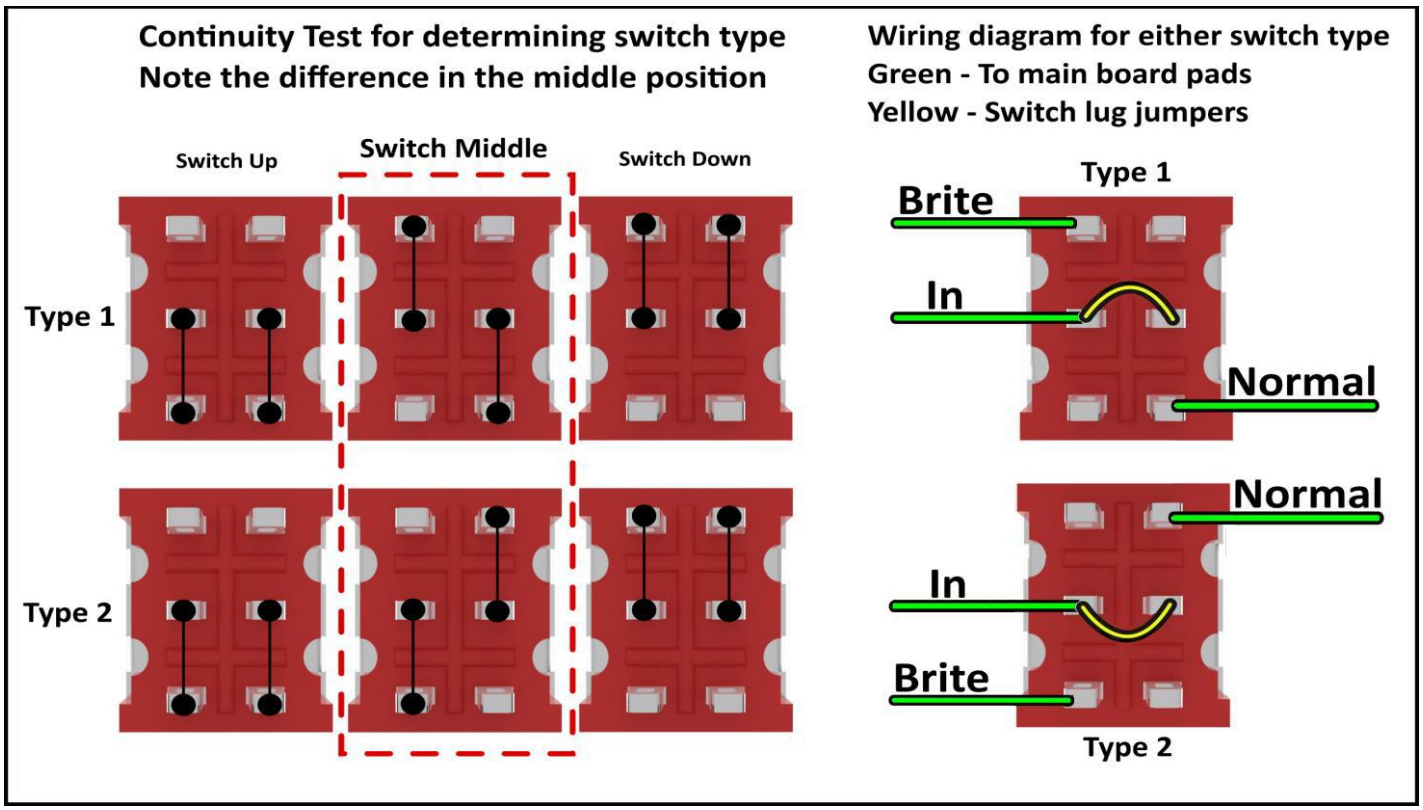
Build Notes:

Adjust the Bias by using a DMM and placing the Red Probe on the Drain lead of Q1 and Black probe on any ground. Adjust TR1 till you get the required voltage. Do the same for TR2 and TR3. TR3 will adjust the Drain of Q3 and the Gate of Q4 simultaneously. You will want about 4.5v to 6.0v on all measurements.

Channel switching using a DPDT On-On-On switch:

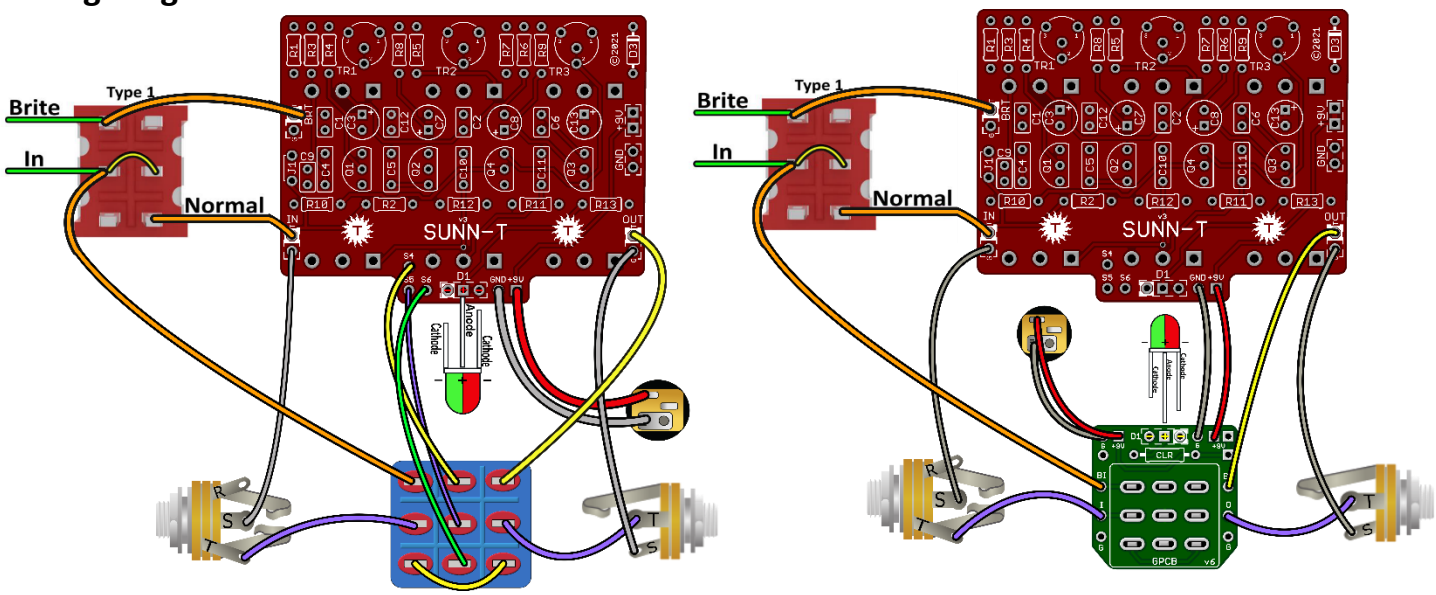
Normally available from the GuitarPCB Shop is our DPDT On-On-On switch which uses a Type 1 pattern as shown below.

It's important when wiring the DPDT switch to be sure which type you've got. You can check this with a multimeter. Type I is far more common. That said Type 2 switching patterns are available. It is important to ensure that when an on-on-on switch is used, you know what type it is, and how to adjust your wiring accordingly.



Wiring diagram updated 02-19-2022

Wiring Diagram:



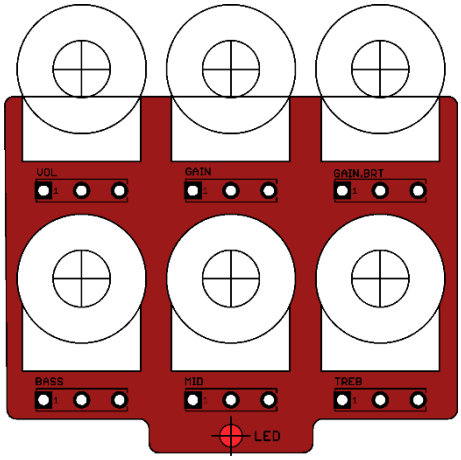
Wiring diagram updated 02-19-2022

*STATUS LED

If you are using our 3PDT board, you should omit wires and parts from S4, S5 & S6, D1 and R13 (CLR).
The CLR and LED will be populated on the 3PDT board instead.

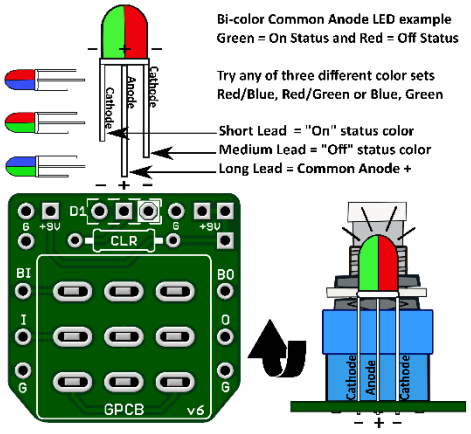
No Switch Version: You may bypass channel switching by wiring a jumper using the two pads at J1. This will let you adjust both channels which will be on at the same time. Then wire the Orange IN wire from 3PDT IN to the Main Board IN white T pad.

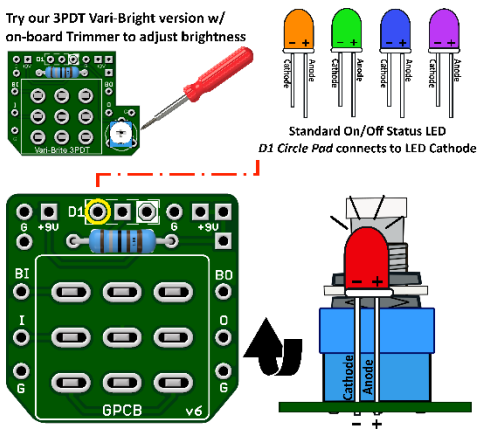
Drill Template:

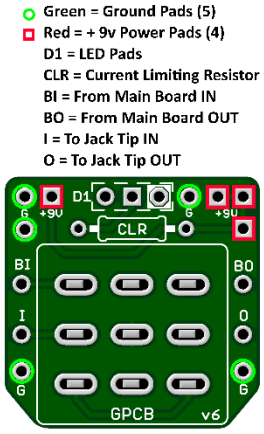


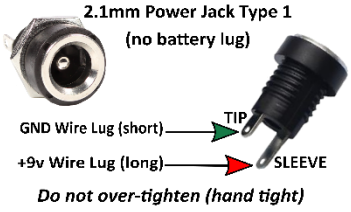
Drill Tips: Measure your components before selecting a drill bit. We recommend drilling the pot holes, mounting the pots in the enclosure, and then soldering the pots to the board. This approach should resolve the issue of the pots not fitting through the holes after soldering. We also recommend you 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.
Obviously if you are using our 3PDT Wiring Board for your LED then do not drill the LED hole in the template above.

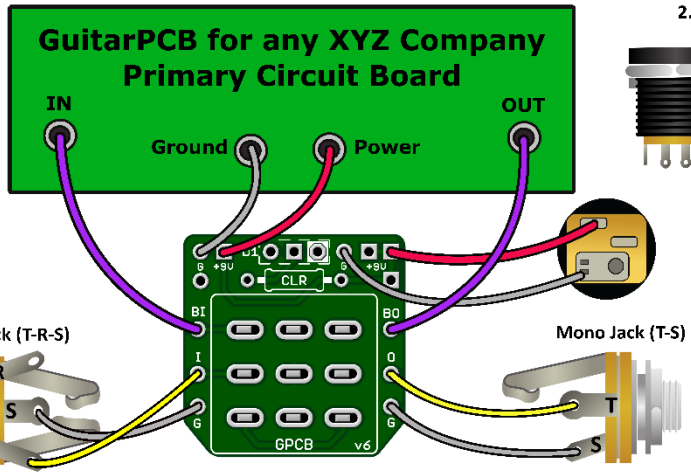
GuitarPCB Tip Sheet

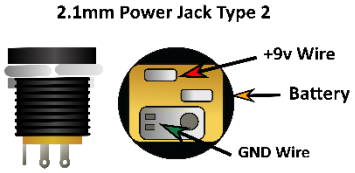




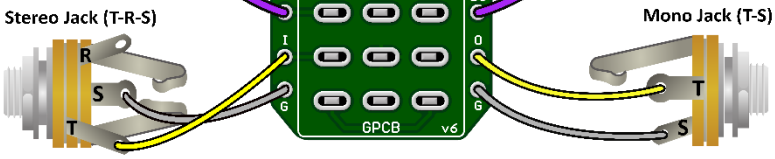








T = Tip
R = Ring
S = Sleeve



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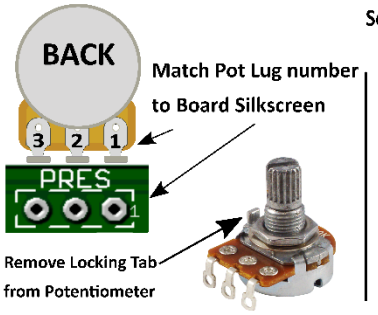
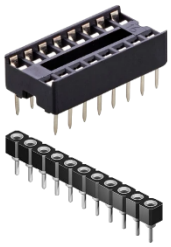
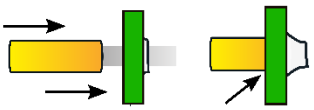
Multiple +9v and Ground Pads are convenient hookup points for additional circuits within the same enclosure. This also allows for diverse wiring schemes to suit indiviual needs.



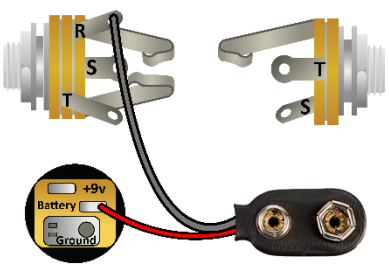
Sockets make troubleshooting easier





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