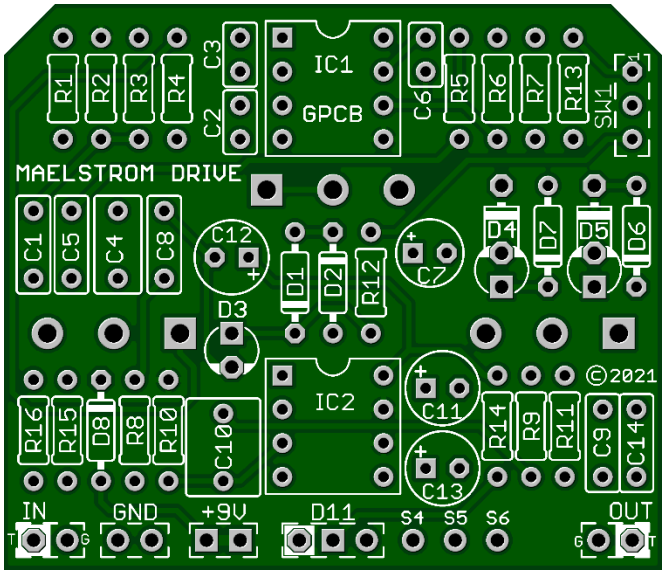
Maelstrom Drive 2021

The Maelstrom Drive is a Medium Gain to Distortion type circuit with three separate clipping options. This circuit is based off of the Suhr Riot™. It is easy to Mod it to your own desired configuration: Asymmetrical, Symmetrical utilizing many Diode configurations.



Dimensions: 1.95” x 1.67”

Part	Value
R1	2M
R2	470k
R3	1k
R4	1k
R5	10k
R6	1M
R7	470R
R8	12k
R9	8k2
R10	100k
R11	100R
R12	220R

Part	Value
R13	470R
R14	1k8
R15	22K
R16	22K
C1	22n
C2	33p
C3	100p
C4	220n
C5	100n
C6	100p
C7	2u2

Part	Value
C8	22n
C9	22n
C10	1u
C11	10u
C12	47u
C13	47u
C14	22n
VOL	A10k
GAIN	B100k
TONE	C10k

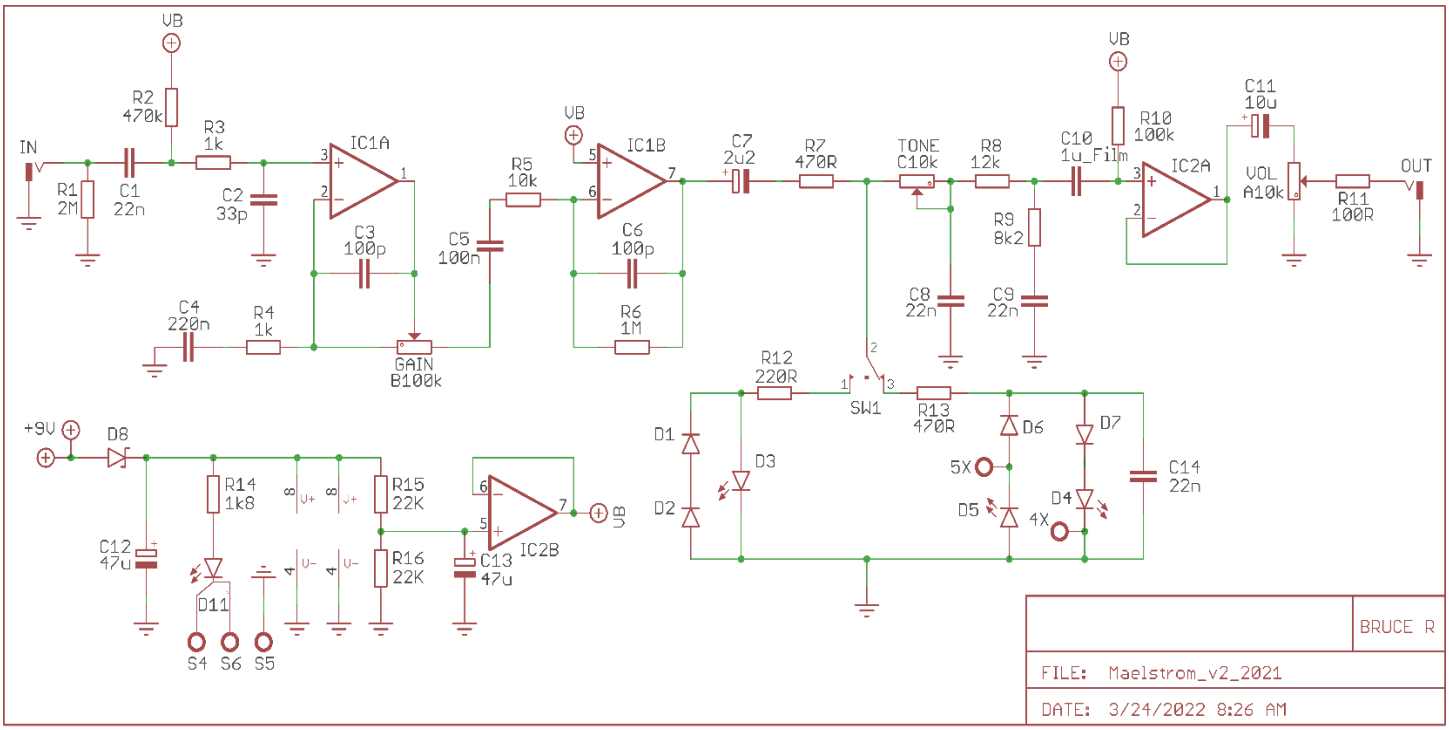
Part	Value
D1-D2	1n914
D3	Blue
D4- D5	Red
D6	1n34A
D7	1n34A
D8	1n5817
D11	Status LED
IC1	RC4558
IC2	RC4558
SW1	SPDT-ON-OFF-ON

STATUS LED

D11 is a Status LED that can use either Bi-Color Common Anode or a Standard On/Off LED.

New in this GuitarPCB 2021 version release:

- Large off-board wiring pads, On-board potentiometers and additional cosmetic upgrades.
- Incorporated a 1N5817 protection diode



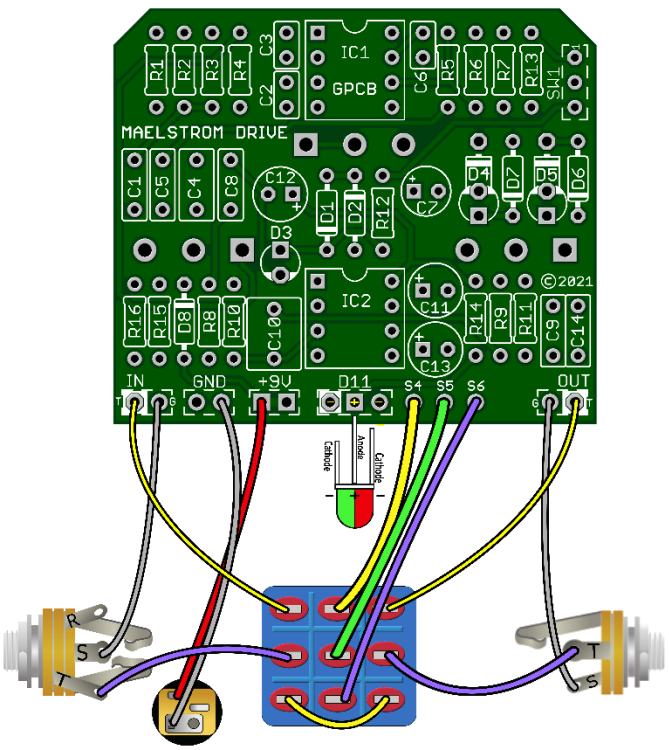
Build Notes

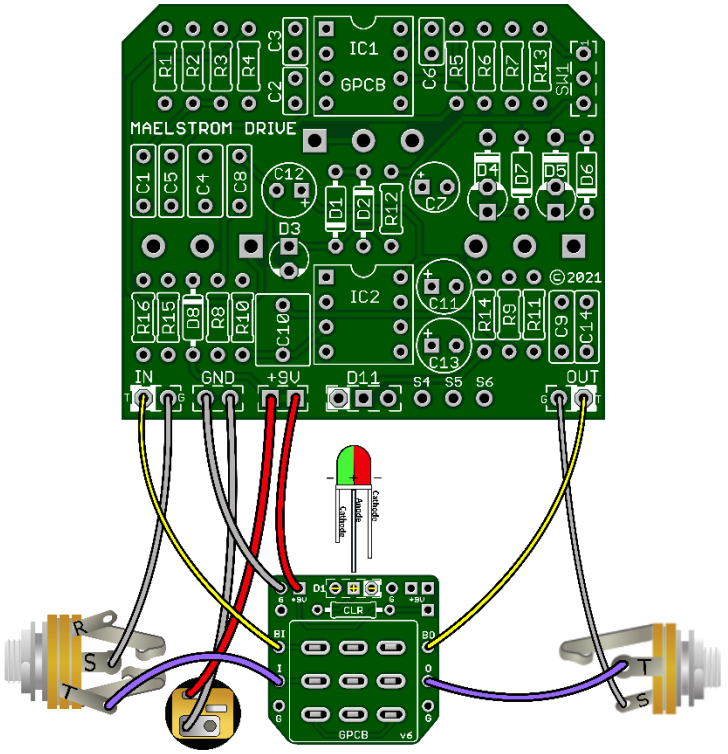
R2 value is 470K while R7 & R13 are 470R. Do not confuse these different values.

Feel free to experiment with Diode choices at D1, D2 & D3 as well as D4, D5, D6 and D7.

D4 and D5 both have pad spacing for laying diodes flat or for LEDs which is stock. See board silkscreen.

Wiring Diagram



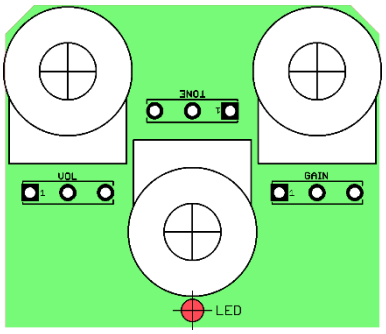


STATUS LED

Note: If you are using our 3PDT board, you should omit wires and parts from S4, S5 & S6, D11 and R14 (CLR).

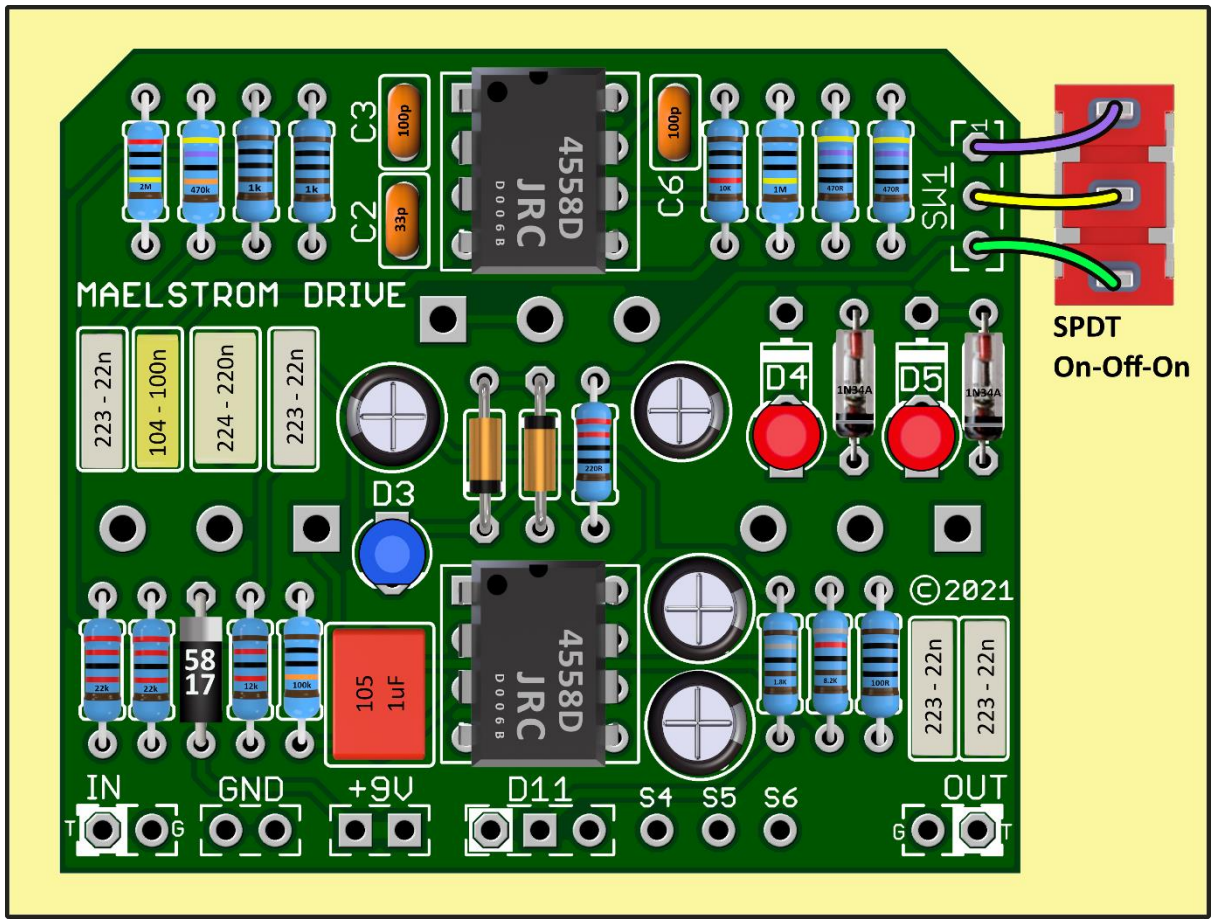
The CLR and LED will be populated on the 3PDT board instead.

DRILLING GUIDANCE FOR POTS and LED



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.
If mounting the Status LED to our 3PDT Wiring Board do not drill LED hole on the template.

Populated Board Image for Troubleshooting



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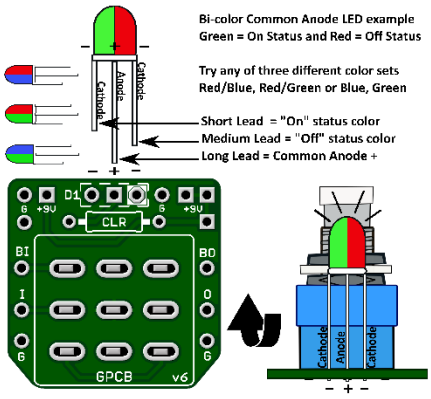
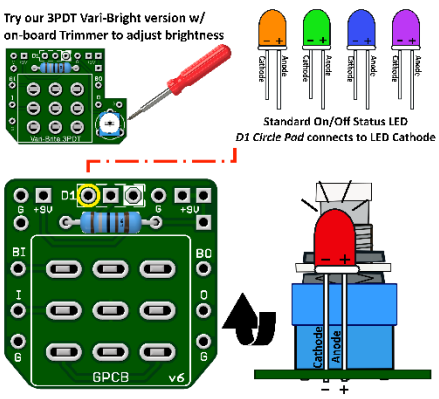
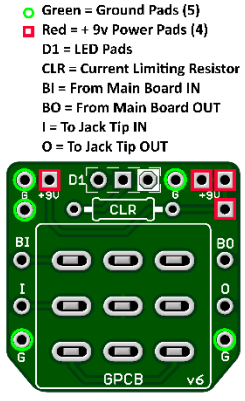
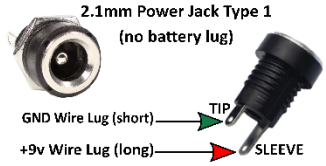
- **USA – Check out PedalPartsAndKits for all your GuitarPCB kit needs in the USA.**
- **Europe – Das Musikding Order either boards or kits direct from Europe.**
- **PedalPartsAustralia - Order either boards or kits direct from Australia**

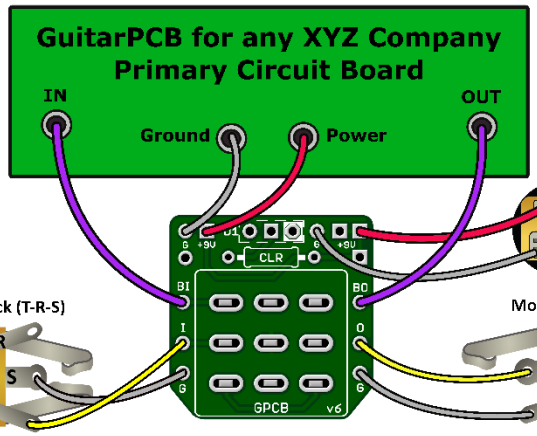
GuitarPCB Tip Sheet

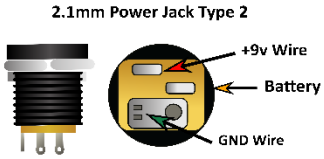








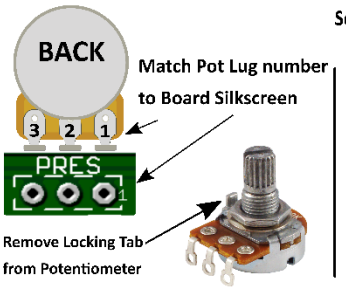




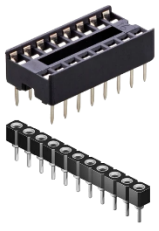
T = Tip
R = Ring
S = Sleeve

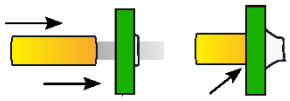
T = Tip
S = Sleeve

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.



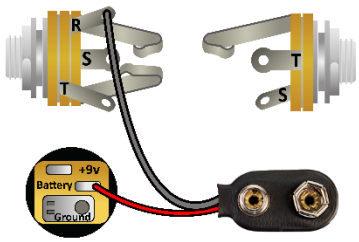
Sockets make troubleshooting easier





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