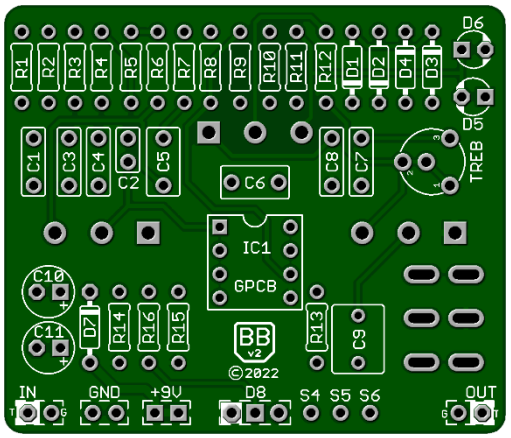
Blues Buster v2 2022

As the name implies the Blues Buster replicates tones found in the classic Marshall pedal which was based on the classic Marshall Blues Breaker amp. The result is a highly flexible Boost/Overdrive circuit.



Board Dimensions (W x H) 2.12” x 1.81”

Part	Value
R1 - 1M	
R2 - 1M	
R3 - 4k7	
R4 - 3k3	
R5 - 3k3	
R6 – 330k	
R7 - 4k7	
R8 - 4k7	

Part	Value
R9	6k8
R10	220k
R11	1k
R12	6k8
R13	1M
R14	47k
R15	47k
R16	*1k8

Part	Value
D1	1N914
D2-D3	1N914
D4	1N914
D5-D6	Red LED
D7	1N5817
D8	Status LED
IC1	4558

Part	Value
C1	56n
C2	47p
C3	56n
C4	15n
C5	220n
C6	220n
C7	10n
C8	10n

Part	Value
C9	1u
C10	100u
C11	100u
SW1	DPDT ON-ON
TONE	B25k
TREB	50k Trim
VOL	A100k
DRIVE	B250k

STATUS LED

D8 is a Status LED that can use either Bi-Color Common Anode or a Standard On/Off LED. R16 is the CLR for the Status LED

New in this GuitarPCB 2022 version release:

- Large off-board wiring pads and additional cosmetic upgrades.
- Onboard DPDT On-On solder lug switch.
- D5 and D6 are 3mm LEDs. The silkscreened stripe represents the orientation for the flat side (cathode) of the LED.
- Incorporated a 1N5817 protection diode.

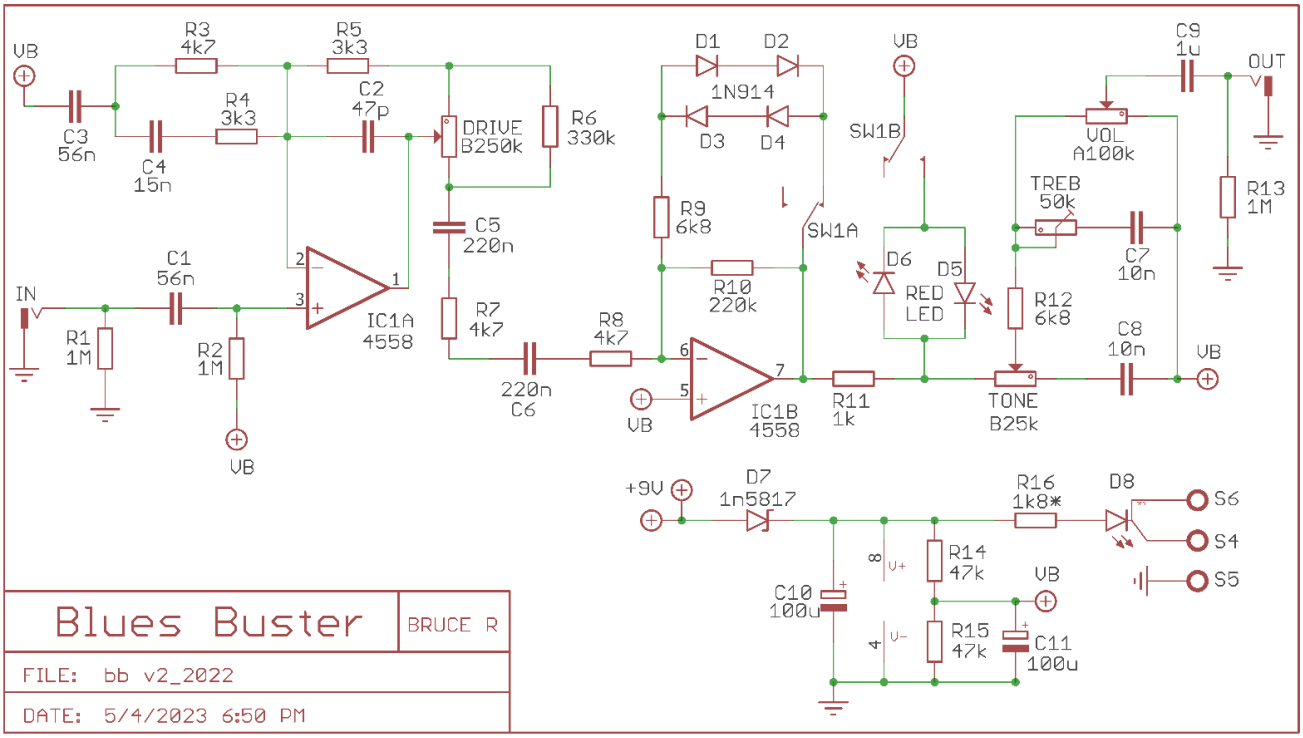
Substitutions:

You may fit 5mm LEDs on this board but it will be tight.

IC1 can be 4558, TL072, TL062, Burr Brown, or similar. Always check datasheets.

D1 through D4 - You may use 1N914 or 1N4148.

If you are using the Main Board for installing your status LED you can try and value of CLR (R16) from 1k8 (bright) to 4k7 (dim).

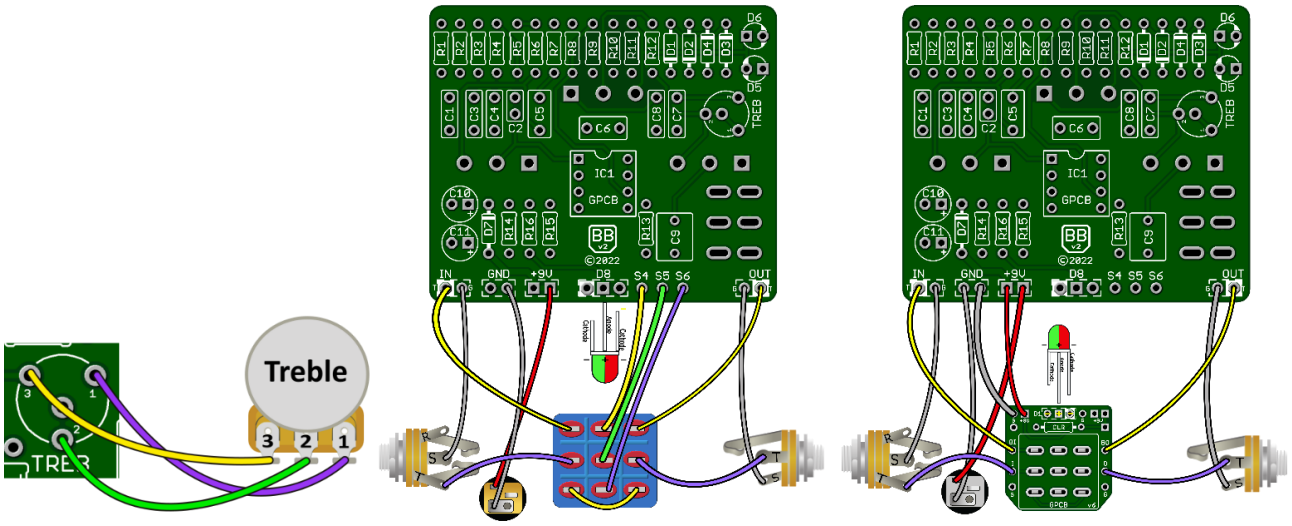


The main controls are Volume, Tone & Drive. A highly flexible boost/overdrive pedal based on the classic Marshall Blues Breaker™. With the Drive control down, you'll get a transparent gain boost. As you turn up the Drive control, the effect transitions from a clean boost to saturated overdrive.

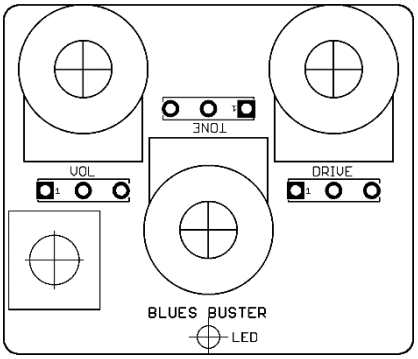
Build Notes:

Treble Trimmer: With the Treble Trimmer you have extra control when using an extra dark, or bright guitar rig simply set and forget your overall favorite tone. The trimmer can also be used as an added enclosure-mounted pot. (See below)

Wiring Diagram:

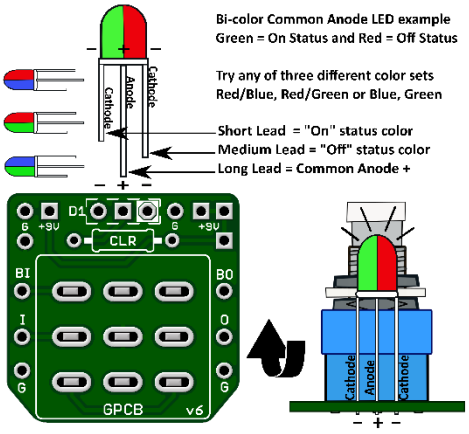


Drill Template



Measure your components before selecting a drill bit. We recommend drilling the potentiometer 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.

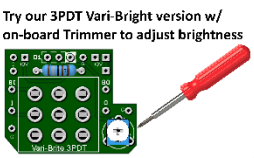
GuitarPCB Tip Sheet



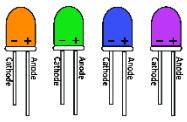
Bi-color Common Anode LED example
Green = On Status and Red = Off Status

Try any of three different color sets
Red/Blue, Red/Green or Blue, Green

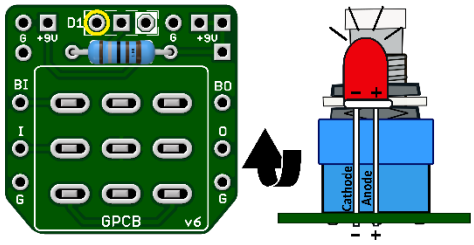
Short Lead = "On" status color
Medium Lead = "Off" status color
Long Lead = Common Anode +



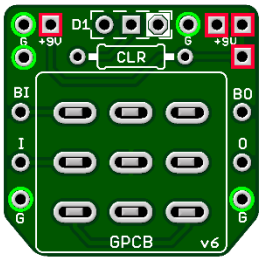
Try our 3PDT Vari-Bright version w/
on-board Trimmer to adjust brightness



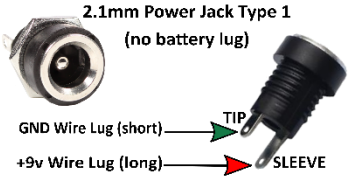
Standard On/Off Status LED
D1 Circle Pad connects to LED Cathode



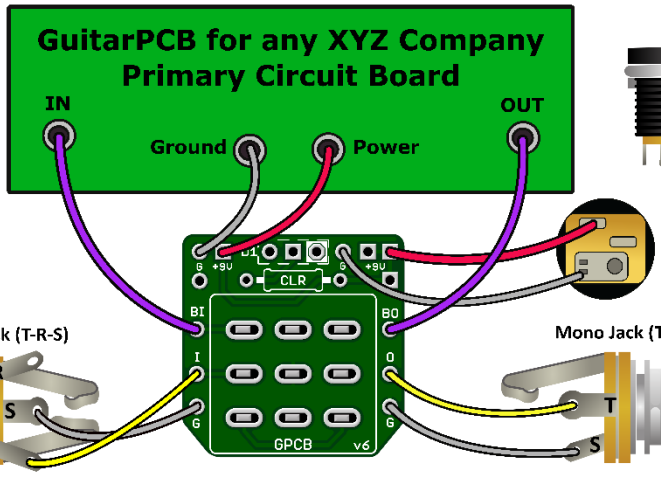
Green = Ground Pads (5)
Red = + 9v Power Pads (4)
D1 = LED Pads
CLR = Current Limiting Resistor
BI = From Main Board IN
BO = From Main Board OUT
I = To Jack Tip IN
O = To Jack Tip OUT



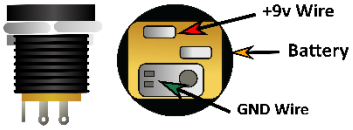
2.1mm Power Jack Type 1
(no battery lug)



Do not over-tighten (hand tight)



2.1mm Power Jack Type 2



T = Tip
R = Ring
S = Sleeve

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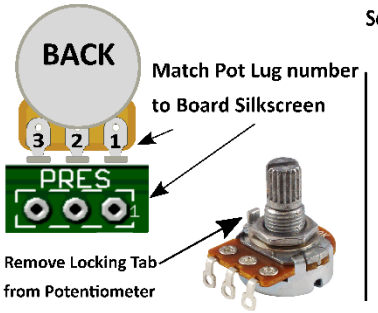
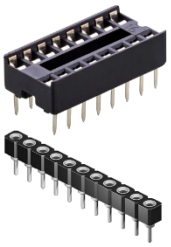
Multiple +9v and Ground Pads are convenient hookup points for additional circuits within the same enclosure. This also allows for diverse wiring schemes to suit indiviual needs.

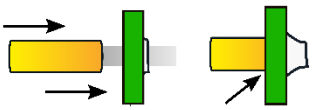


Match Pot Lug number
to Board Silkscreen

Remove Locking Tab
from Potentiometer

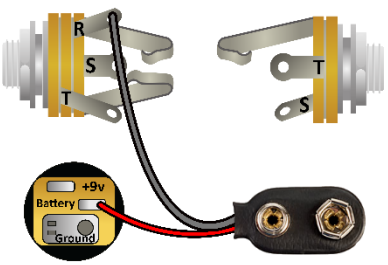
Sockets make troubleshooting easier





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