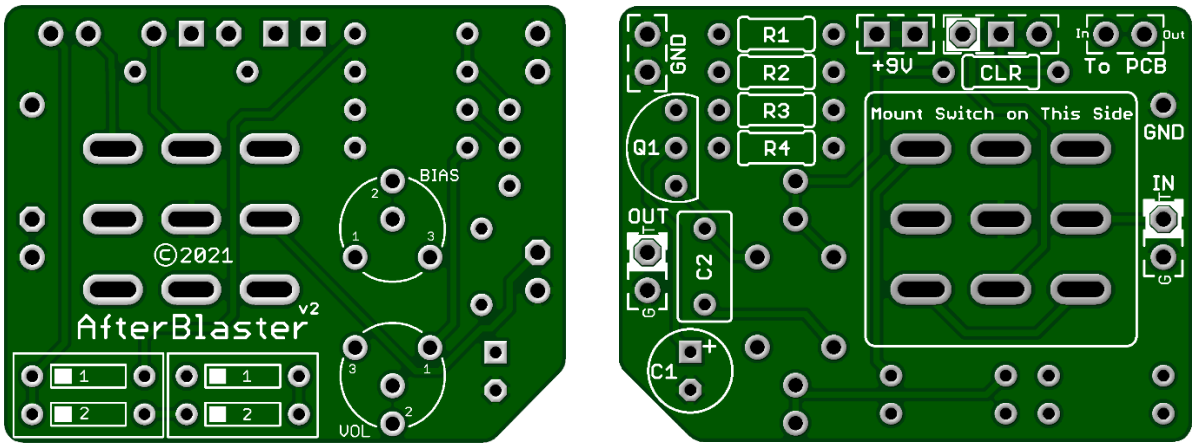
Afterblaster v2 2021 by GuitarPCB

The Afterblaster provides several key functions. Add a switchable clean Gain Stage to any circuit in the same space as your Bypass Footswitch. The Gain Stage is in series "After" the main circuit board giving you the best sound enhancement without coloring your main circuit tone. Additionally, the Afterblaster is a quality Buffer and adds more control over the main circuits overall volume.



Dimensions: 1.50" x 1.15"

PARTS LIST

Part	Value
R1	33k
R2	1M
R3	1k
R4	33k
CLR	1k8
BIAS	20k Trim

Part	Value
C1	22u
C2	220n
D1	Status LED
Q1	J113
VOL	100k

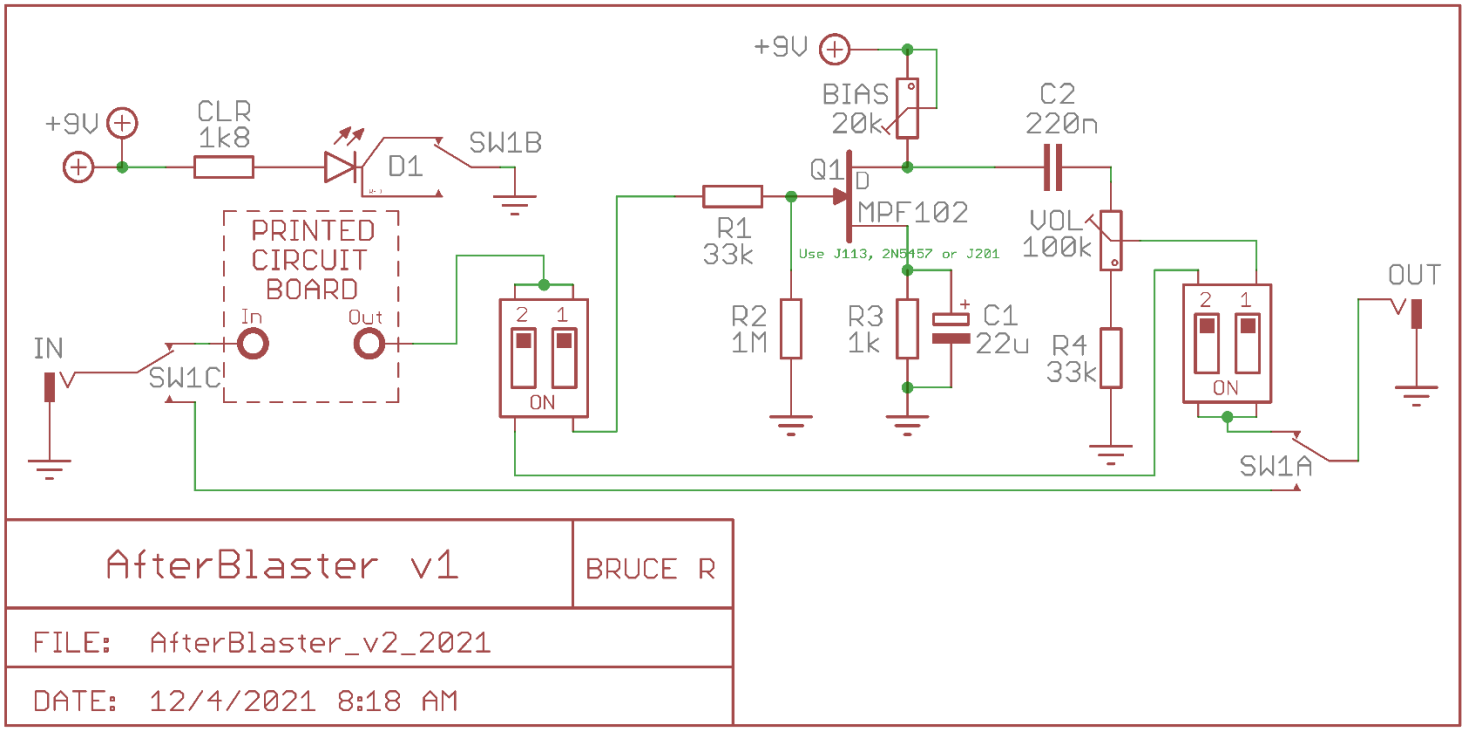
Build Notes:

This 2021 version is slightly different than previous versions of Afterblaster. This BOM should only be used with v2 2021 versions.

If you have an older version of this board, please visit the Guides Page at GuitarPCB.com and get the Build Document there.

- **BIAS** Trimmer (20k) is for precision biasing of the JFET to replace the old R4. R4 value now is 33k and is used to remove attenuation from the Volume Pot. This value can be adjusted for more or less attenuation. A higher value attenuates less.
- **Q1** - You may use a J113, MPF102, 2N5457 or J201. Use a DMM and switch to DCV. Place the Black Probe on the ground and Red Probe on the Drain of Q1. Adjust the trimmer till you get a reading between 4.5v to 6.5v on the Drain of Q1.
- **CLR** - is now the CLR (current limiting resistor). Adjust this value to suit for brightness. Between 1k8 and 4k7 Bright to Dim.

SCHEMATIC



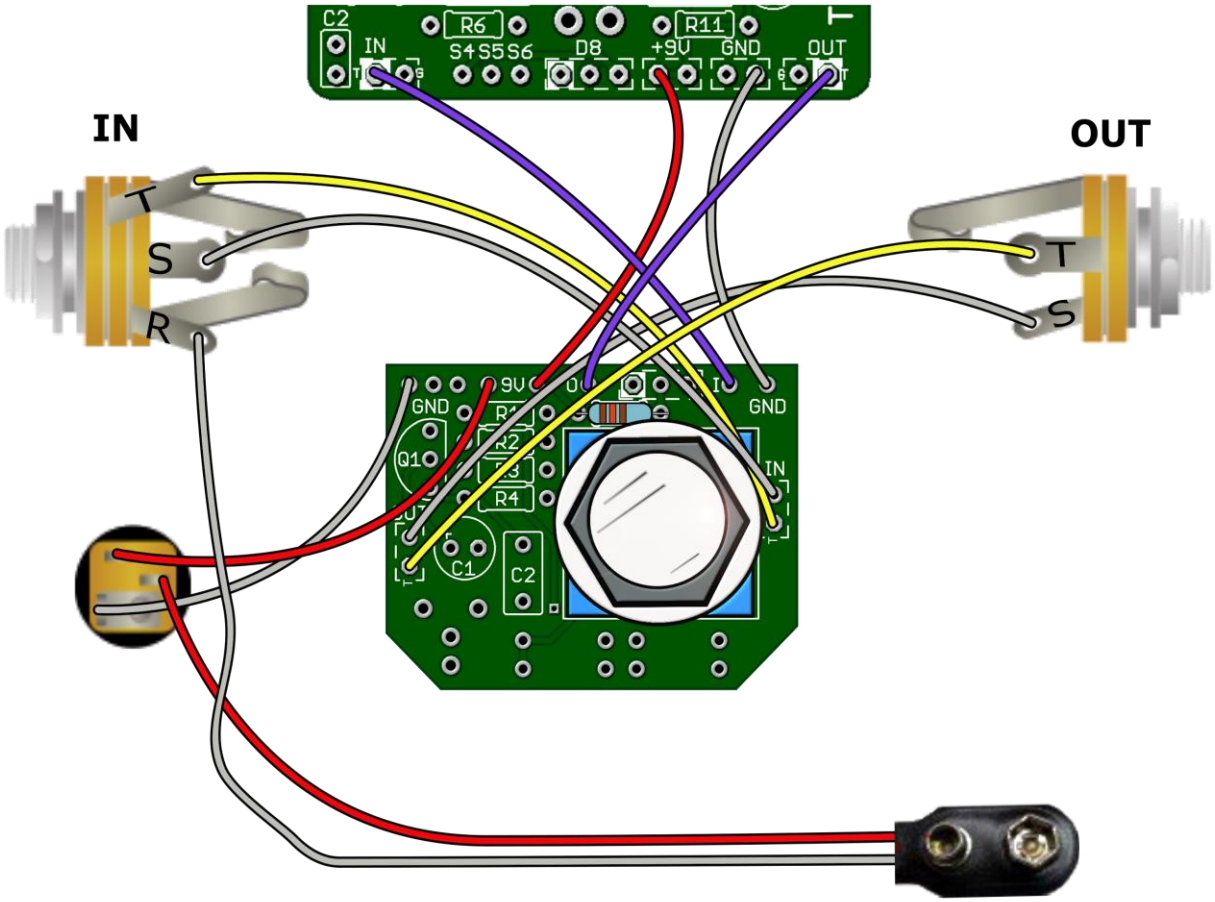
Dip Switch positions explained

- **To activate the AfterBlaster using Dip Switches both of the number 1 switches should be in the ON position, and both of the number 2 switches should be in the OFF position.**
- **To bypass the AfterBlaster both of the number 1 switches should be in the OFF position and the Number 2 switches should be in the ON position leaving you with just the stock main circuit.**
- **The Dip switches will not be functional in any other configuration.**

The DIP switches and trimmer must be installed on the opposite side of the PCB from the other components and footswitch so that you can turn the Gain Stage on or off easily when opening the back cover. This is the preferred set and forget option.

DIP Switches, JFETs, Trimmers and Bi-Color LEDs are usually available in our SHOP.

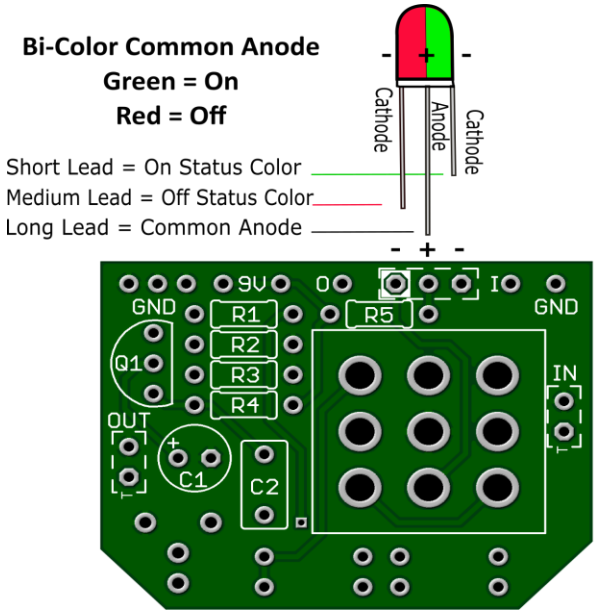
Main Circuit Board



The In and Out Wiring is crossed since everything except the Main Board will be flipped over prior to installation in the enclosure. Note that the Stomp switch is mounted on this side for this reason.

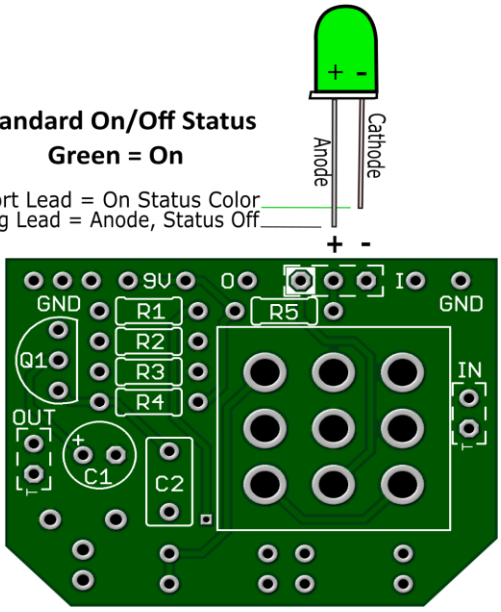
Bi-Color Common Anode
Green = On
Red = Off

Short Lead = On Status Color
Medium Lead = Off Status Color
Long Lead = Common Anode



Standard On/Off Status
Green = On

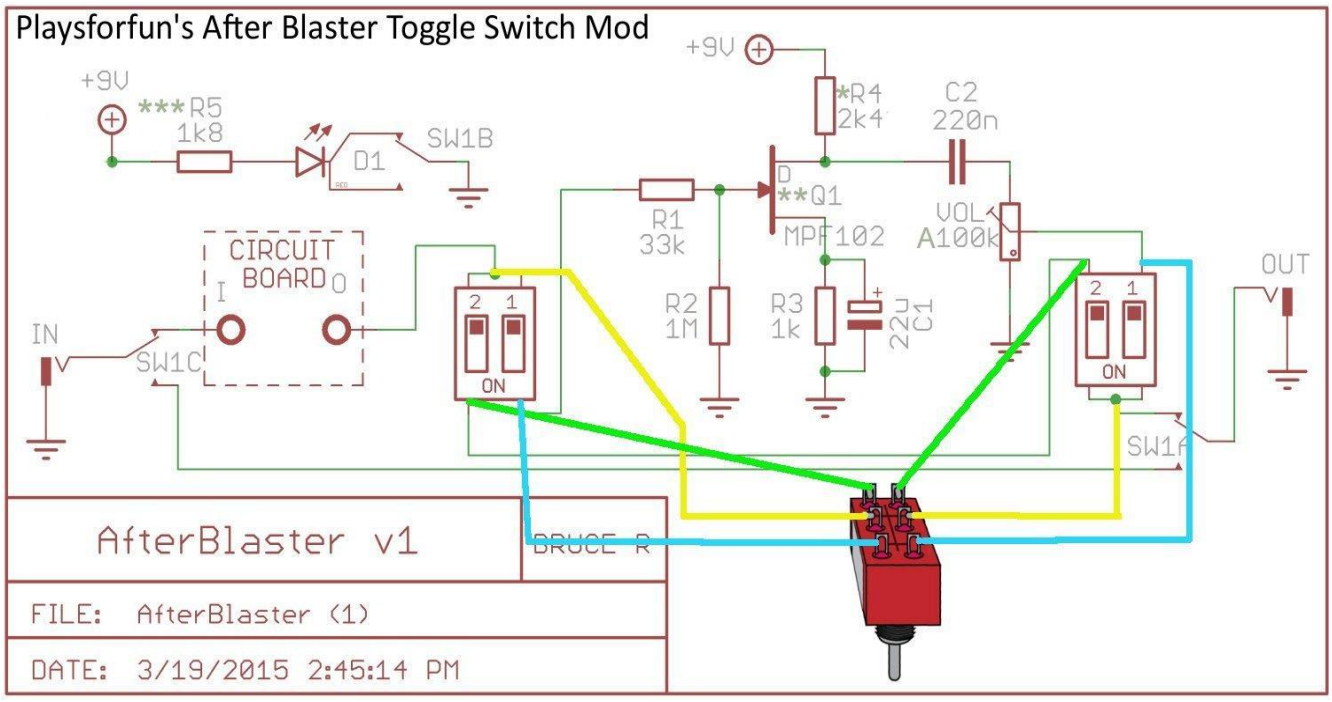
Short Lead = On Status Color
Long Lead = Anode, Status Off



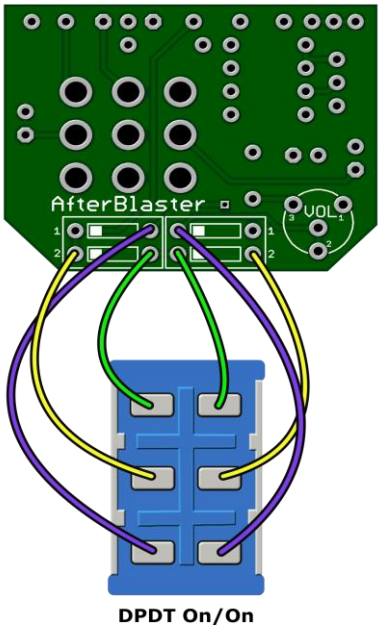
Insert the LED leads into the corresponding pads as shown above. If you wish to change the color of the On Status then simply flip the LED to change to the cathode of the color you wish to use. R5 is the Current Limiting Resistor. Use a value from 1k8 to 4k7.

DPDT and Potentiometer Mod with [video demo]:

Aside from using the on-board Dip Switches and Trimmer (some people prefer the set and forget method) you may use a DPDT switch and potentiometer for mounting on the outside of the enclosure. Keep in mind that the potentiometer should be at roughly 2:00 for unity gain and higher for boost and clarity.

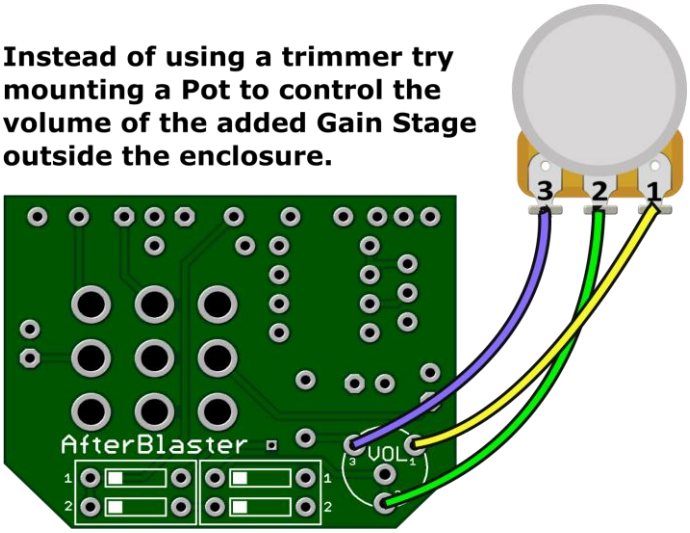


After Blaster Toggle Switch Mod

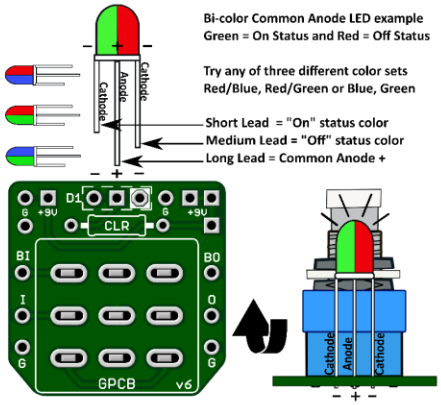


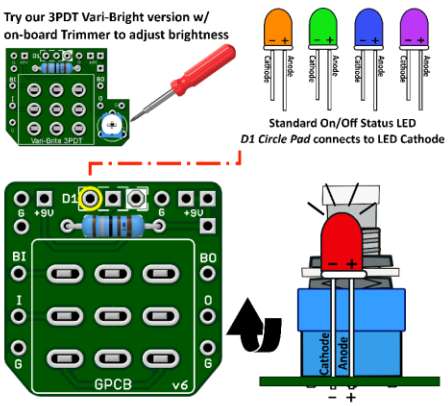
DPDT On/On

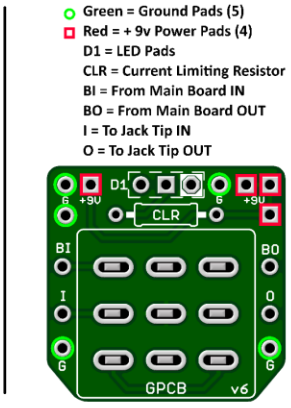
Instead of using a trimmer try mounting a Pot to control the volume of the added Gain Stage outside the enclosure.

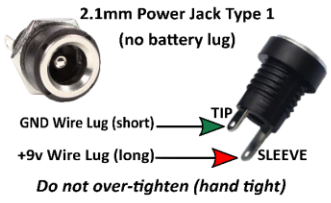


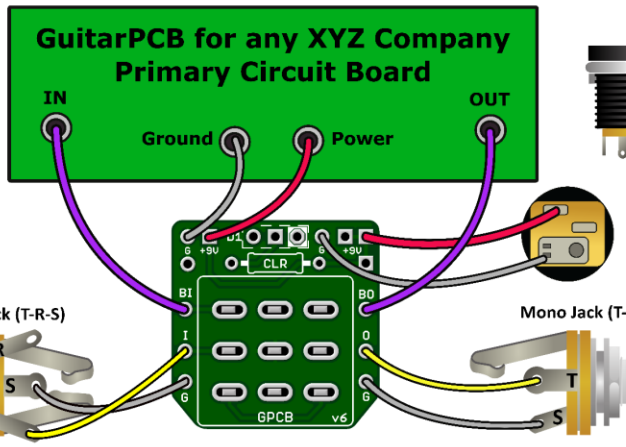
GuitarPCB Tip Sheet

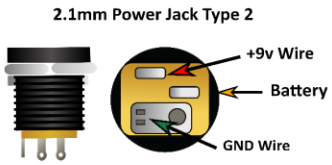




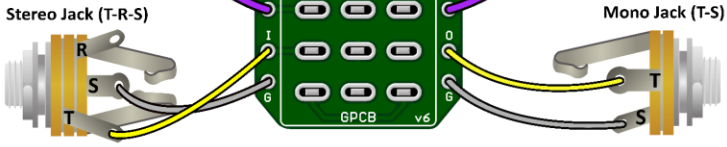






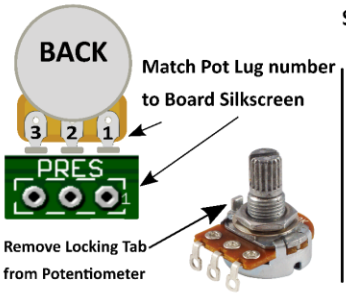


T = Tip
R = Ring
S = Sleeve

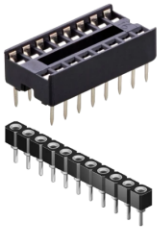


T = Tip
S = Sleeve

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.

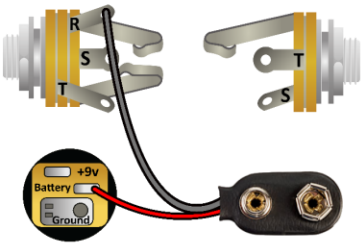


Sockets make troubleshooting easier



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