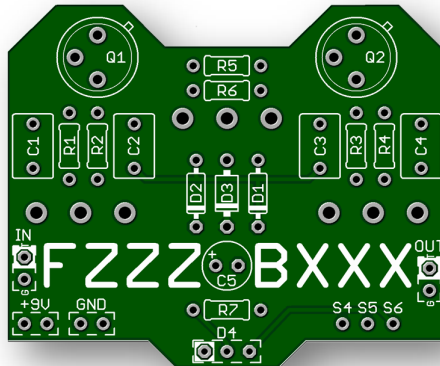


Fzzz Bxxx

(Based on the Sam Ash Fuzzz Boxx)

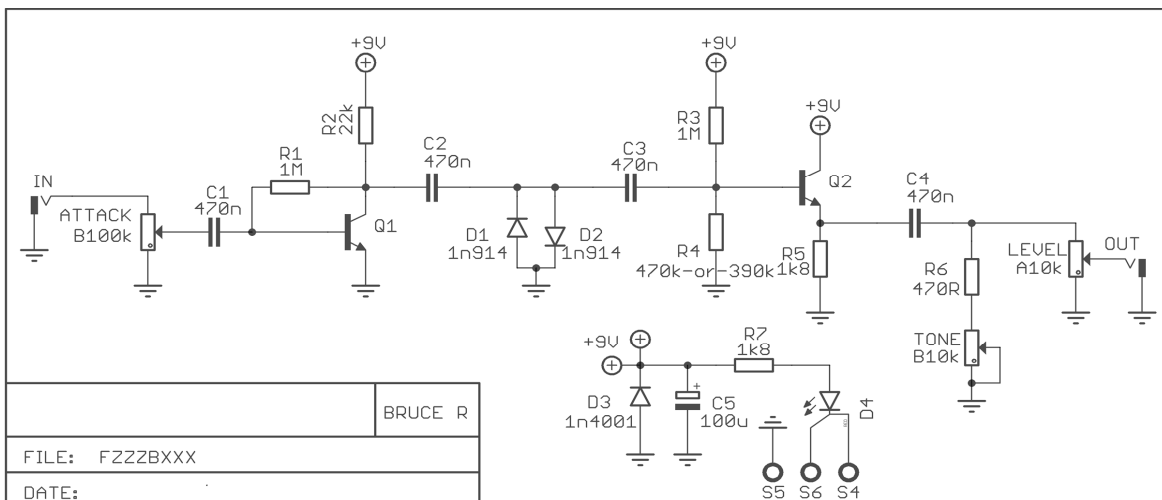
If the warm saturated tone of a late 60's era Fuzz Face is not your thing, then this is probably the Fuzz you are looking for. This circuit produces a powerful and articulate tone that re-creates the sizzling fuzz of that era. Used by greats such as Leslie West (Mountain) and Tommy Bolin (Zephyr, James Gang & Deep Purple). The Fzzz Bxxx cleans up amazingly well with the twist of your Guitar volume producing powerful chiming clean tones on the brink of breakup.

Our Fzzz Bxxx will yield up to 42dB of boost making it an excellent alternative to the Rangemaster. The Tone Pot has been enhanced to allow a full spectrum of tonal adjustments over the original. Cranking the Attack knob increases saturation, enabling maximum-strength Fuzz. This setting is great for warmer psychedelic soloing (American Woman) or some tight power chording: *Credit to Analogman for the Tone Control insights and Wilkie1 for his contributions.*



Board Dimensions (W x H) 1.95" x 1.64" or 49.53mm x 41.66mm

Part	Value	Part	Value
R1	1M	C1	470n
R2	22k	C2	470n
R3	1M	C3	470n
R4	470k	C4	470n
R5	1k8	C5	100u
R6	470R		
R7	1k8	Q1	*2N3053
		Q2	*2N3053
D1	1n914		
D2	1n914	LEVEL	A10k
D3	1n4001	ATTACK	B100k
D4	Status LED	TONE	B10k



Build Notes:

While this is a relatively simple circuit its unique character is apparent. Unfortunately, the original when available on eBay will get upward of \$800. Build your own and get some similar classic tones.

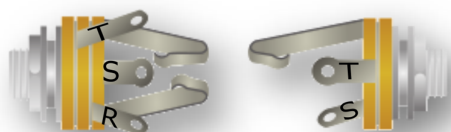
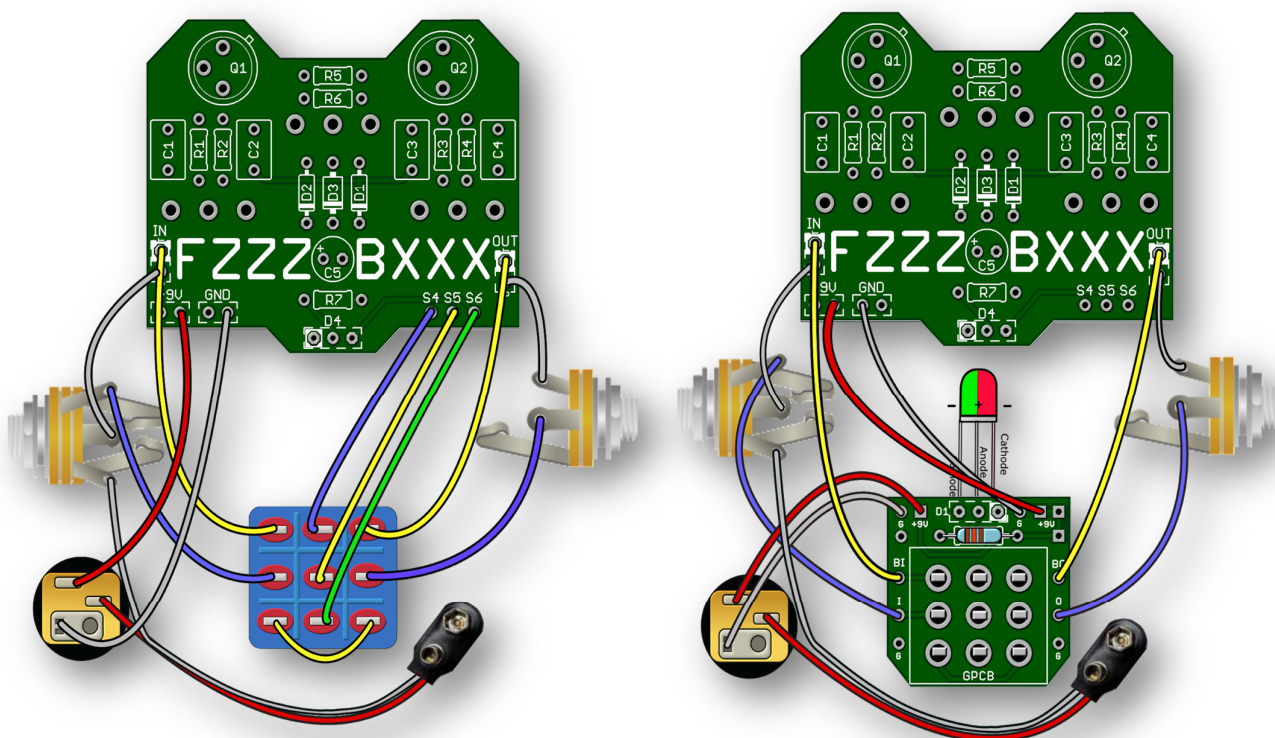
Transistors must be NPN. Suggested hFE for this build 120-180. The original use 2N3566 however since they are hard to find we suggest 2N3053 for its similar characteristics. The board is designed for a TO-39 package but feel free to use BC108, BC109 OR 2N222. They all sound quite good.

GuitarPCB typically carries 2N3053, BC108 or BC109 in the [Shop](#).

If you want to build it like the original Sam Ash change the Taper of Level to Linear and place 47n in C1 through C4. Doing so will limit that available tone particularly in the Bass. Change R6 to 1k8.

Controls:

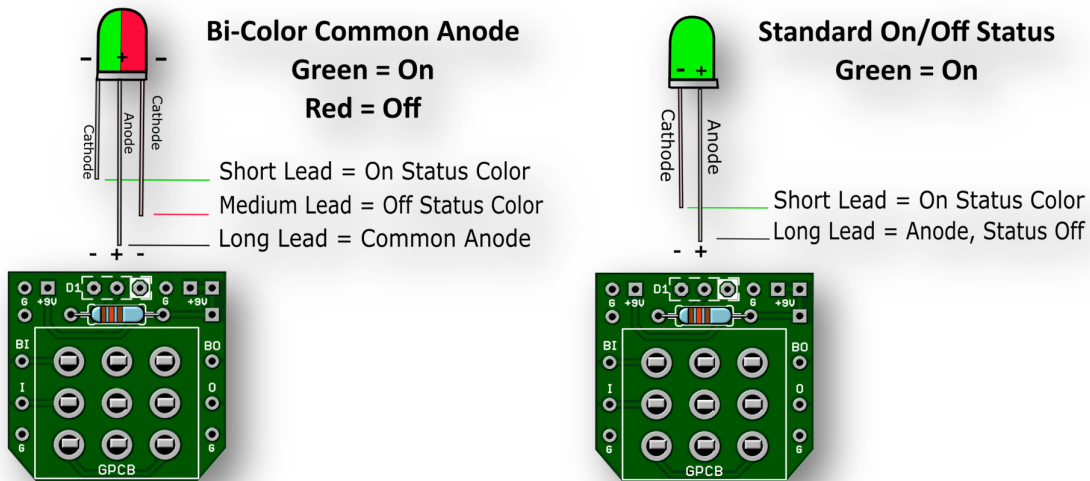
- **Volume:** The best setting which is interactive with the Gain Control is just past unity volume - usually around 2:00. If you are looking for cleaner tones then turn the Volume up full and the gains back.
- **Gain:** Best settings are subjective to the tone you desire. For a cleaner response try lower gain settings and experiment with your guitar volume.
- **Tone Controls:** Different from the original Sam Ash we changed R6 to 470R and C1 through C4 to 470n from 47n which opens up tonal response down to 32hz as opposed to being limited.



Be sure your In/Out Jack wiring is correct. A Stereo Jack (for battery use only) has a RING lug which is used to connect to the battery ground. If you do not intend to use a battery there is no need for a Stereo Jack. If using Stereo then only use the Tip and Sleeve lugs. S4, S5 & S6 is only needed when the LED is wired to the Main Board.

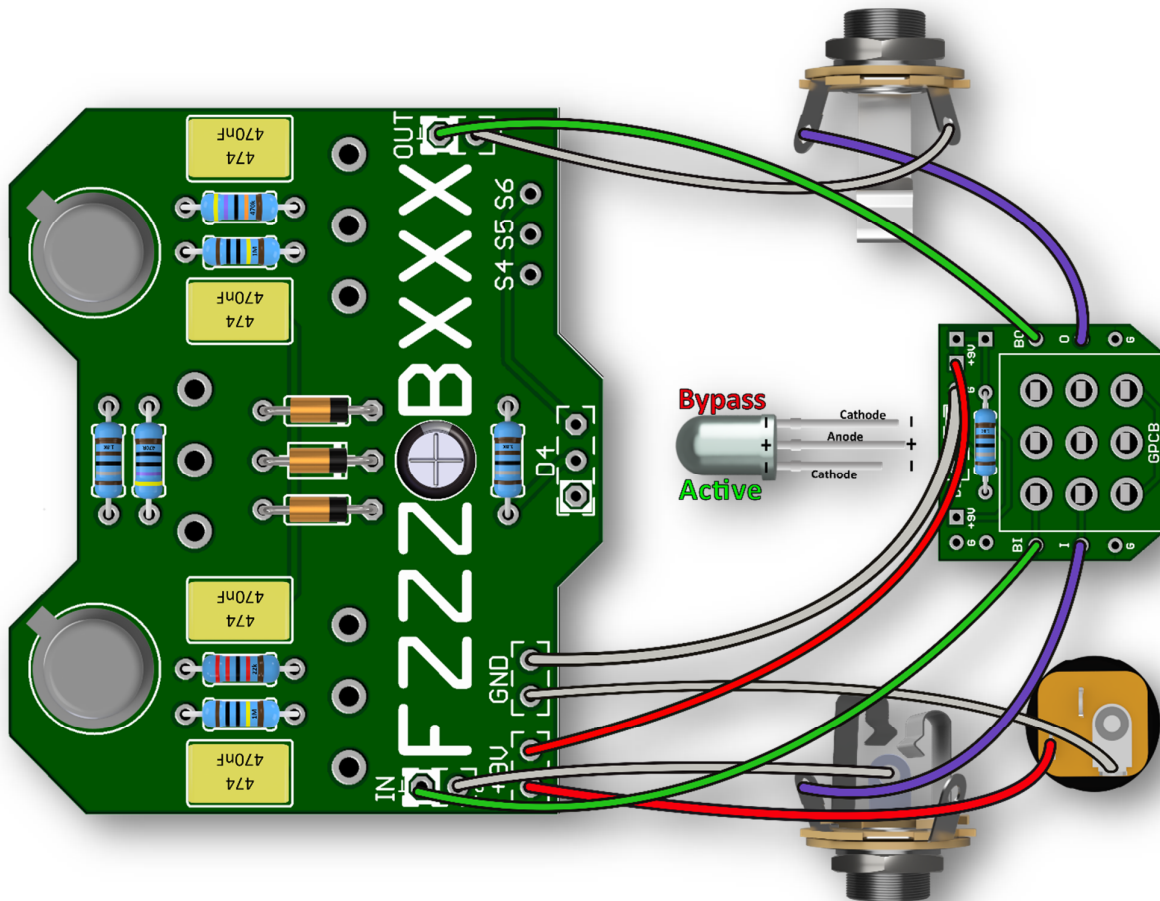
If using our convenient 3PDT Wiring Boards (below) here is an LED wiring guide. You may use Common Anode Bi-Color or Standard On/Off. The wiring boards use the same symmetrical layout as if wiring straight to the switch.

STATUS LED



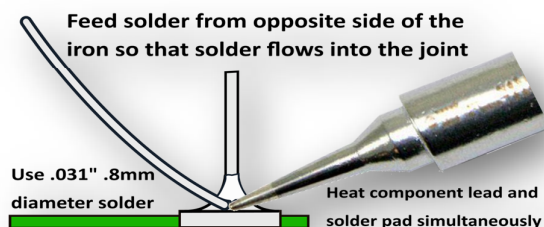
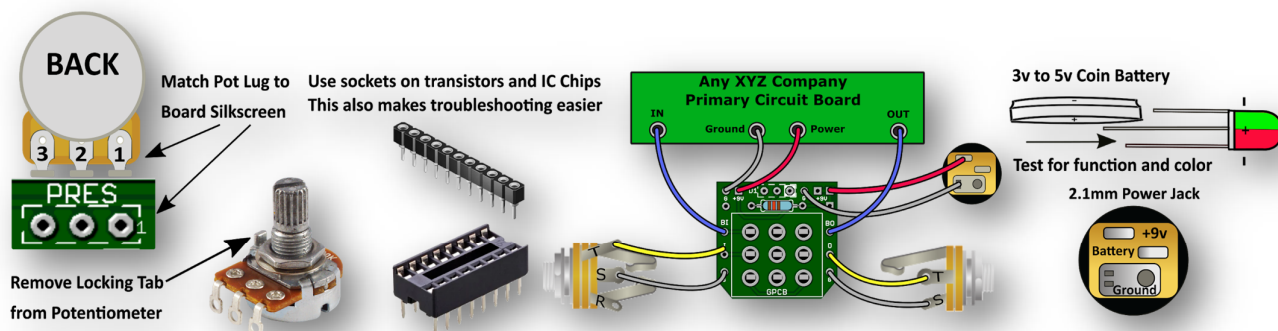
Note: If wiring the LED to our 3PDT board no need to connect S4, S5 & S6 or populate D4 or R7 (CLR) on the main board since you are wiring your LED directly to our board.

Direct Online Link: [3PDT Wiring Board Build Document](#)





This is the classic Sam Ash Fuzz was used by greats such as Leslie West (Mountain) and Tommy Bolin (Zephyr, James Gang & Deep Purple).



A good solder joint should be shiny and look like this:

- * Carefully re-flow suspect solder joints.
- * Clean and tin your Tip regularly.

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

Use the right tools for the job and be patient.
If you need help ask questions first at the GuitarPCB forum.
We are there to help and we know our products best.

Be sure to check out our [Guides Page](#) in our Forum for more in-depth tutorials, charts and guides.

[Soldering Tutorial on Youtube](#)

Need a kit? Check out our authorized worldwide distributors:

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

If they do not have a KIT listed send them a note asking if they can help you out.



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