
GuitarPCB Presents

NostalgiTone ModBender Single

Classic Tone Bender-inspired fuzz with a Modern approach.

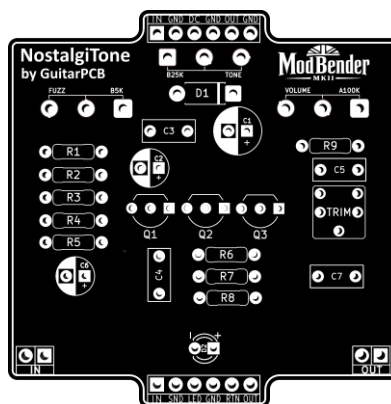
ModBender takes the legendary three-transistor fuzz architecture that defined some of rock's most iconic tones and refines it for today's builders. Using three 2N3903 silicon transistors selected for their lower gain characteristics, ModBender delivers the aggressive harmonic character, sustain, and dynamic response associated with classic Tone Bender circuits while providing improved consistency and reliability.

Unlike traditional tone controls that shape a broad range of frequencies, ModBender features a dedicated high-frequency contour control that allows players to fine-tune the upper harmonic response of the fuzz, allowing players to adjust the balance between cutting definition and a more subdued vintage character.

The onboard bias trim allows builders to fine-tune the final gain stage for the desired balance of sustain, compression, and vintage-style fuzz response. Start at 4.5V on the Q3 collector and adjust from there by ear to find your preferred tonal character.

 **Easy Wiring:** No more daunting wiring hassles! Say hello to beauty under the hood. Enjoy all-analog tones with modern features that will slip into your gig bag, ensuring you are always ready to unleash your musical magic.

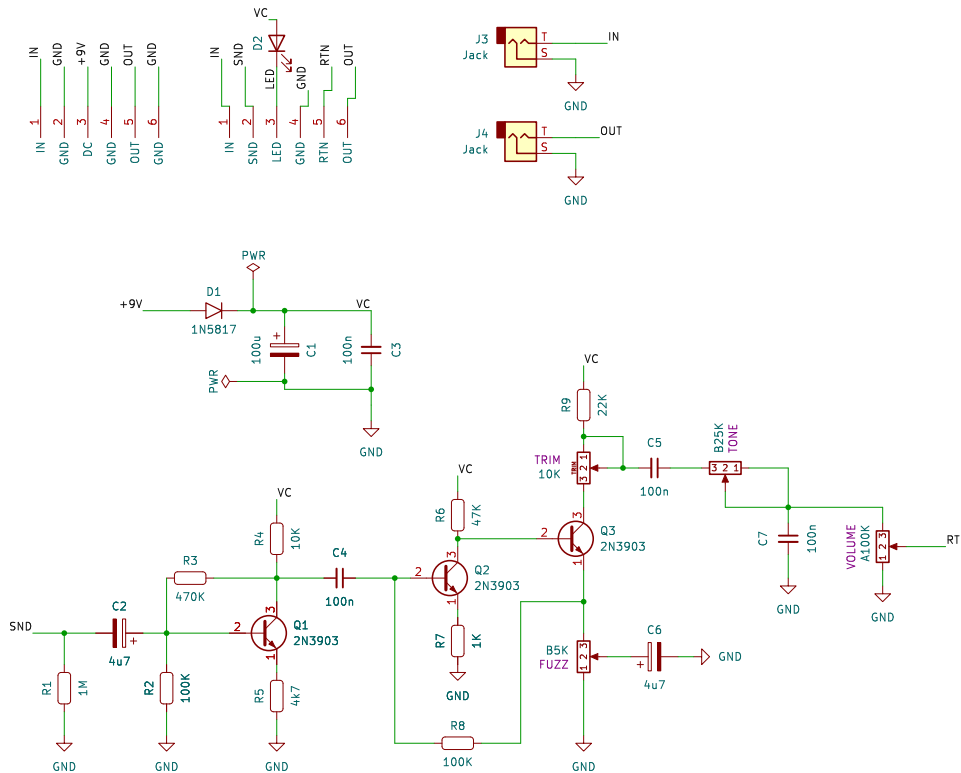
 **Available Components:** We recognize the hurdles of component availability. Rest assured, we've carefully selected components for the **NostalgiTone** series currently available from today's popular vendors.



Mainboard Dimensions – 2.10" x 2.12"

Included with each PCB purchase. – (1) Mainboard, (1) wiring board, and (1) ribbon cable.

Schematic:



Bill of Materials:

PART	VALUE	PART	VALUE	PART	VALUE	PART	VALUE
R1	1M	R8	100K	C5	100n	D1	1N5817
R2	100K	R9	22K	C6	4u7	D2	Status LED
R3	470K			C7	100n	TRIM	10K
R4	10K	C1	100u			FUZZ	B5K
R5	4k7	C2	4u7	Q1	2N3903	TONE	B25K
R6	47K	C3	100n	Q2	2N3903	VOLUME	A100K
R7	1K	C4	100n	Q3	2N3903	* CLR x1	1k8 - 4k7

Build Notes:

Included with the purchase of the main PCB board will be (1) standard foot switch wiring board (6 pins), and (1) 6 pin ribbon cable. This simplifies the wiring process while keeping troubleshooting and noise to a minimum.

Note the extra IN / Out pads located at the bottom of the PCB which are conveniently placed if you wish to use side jacks.

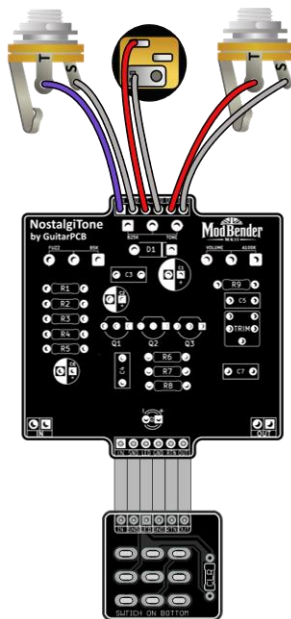
Use a standard 6-pin ribbon cable to connect the foot switch wiring board with the main board. The 3PDT wiring board contains an onboard (CLR) current limiting resistor. This is to protect and adjust the brightness of their corresponding main board status LEDs. A value of 1k8 to 4k7 may be used.

* CLR x1 - Each wiring board requires an onboard (CLR) current limiting resistor. This is for the main board status LEDs. A 1k8 (Bright) value to 4k7 (Dim) may be used. A main Status LED is to show the active status.

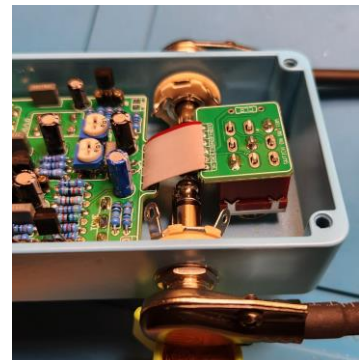
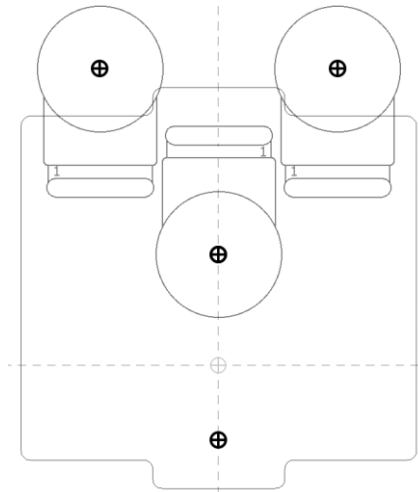
TRIM Adjustment

With the circuit powered at 9V, connect your multimeter black probe to ground and measure the voltage at the Q3 collector (left pad). Adjust the 10K bias trim until the reading is approximately 4.5V. Fine adjustment by ear is encouraged to achieve the final desired tone.

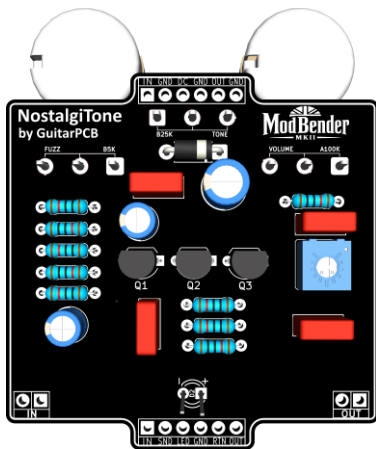
Wiring Diagram



Generic Drill Template

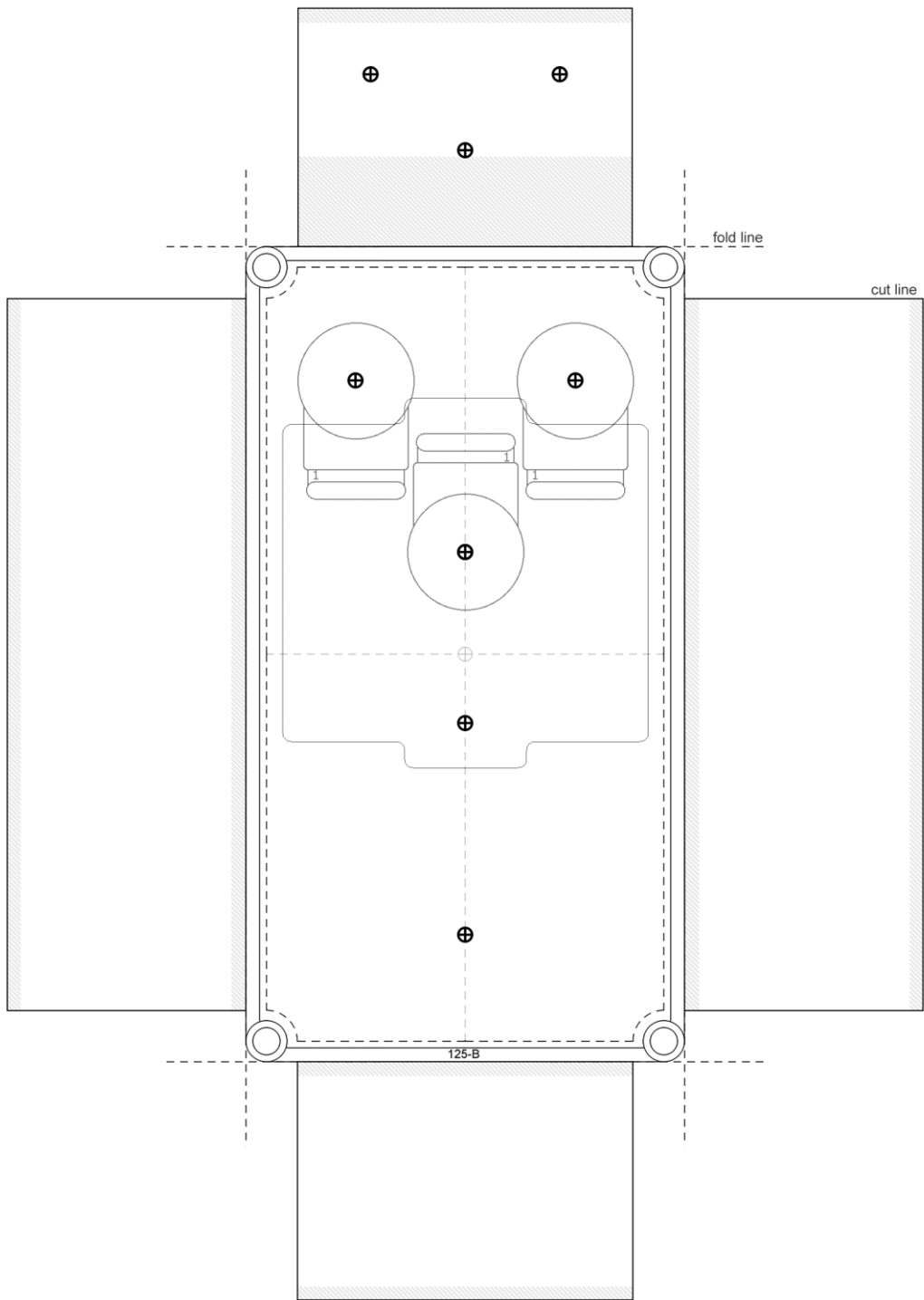


When using 1590B enclosures, it is best to mount the ribbon cable on top of the main board/3PDT wiring board instead of underneath. This is because the enclosure's compact size restricts space for the side jack Input and Output plugs.

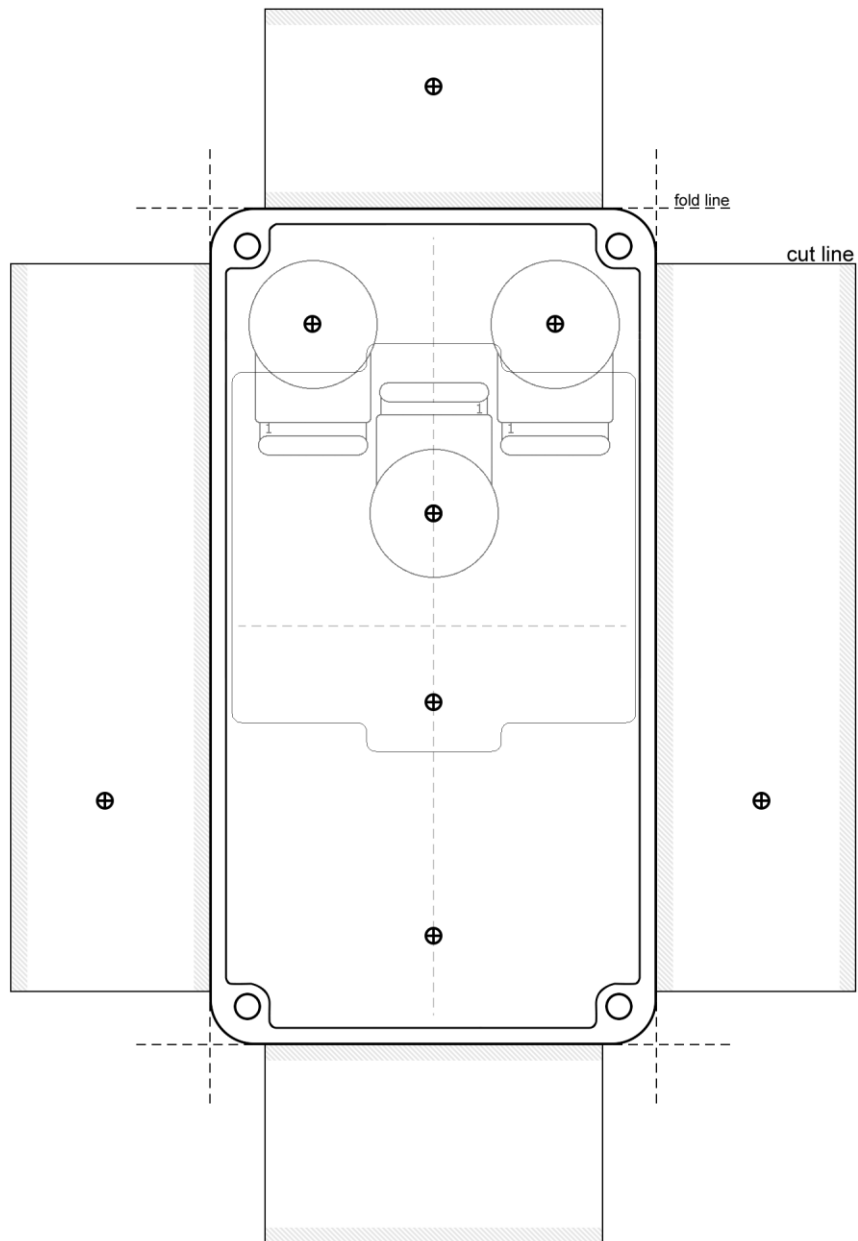


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The full-size drill templates for 125B and 1590B enclosures can be found on the following two pages. Additionally, you can find a link to Tayda's pre-drilled enclosures on the shop page at GuitarPCB.com.



125B Drill Template



1590B Drill Template