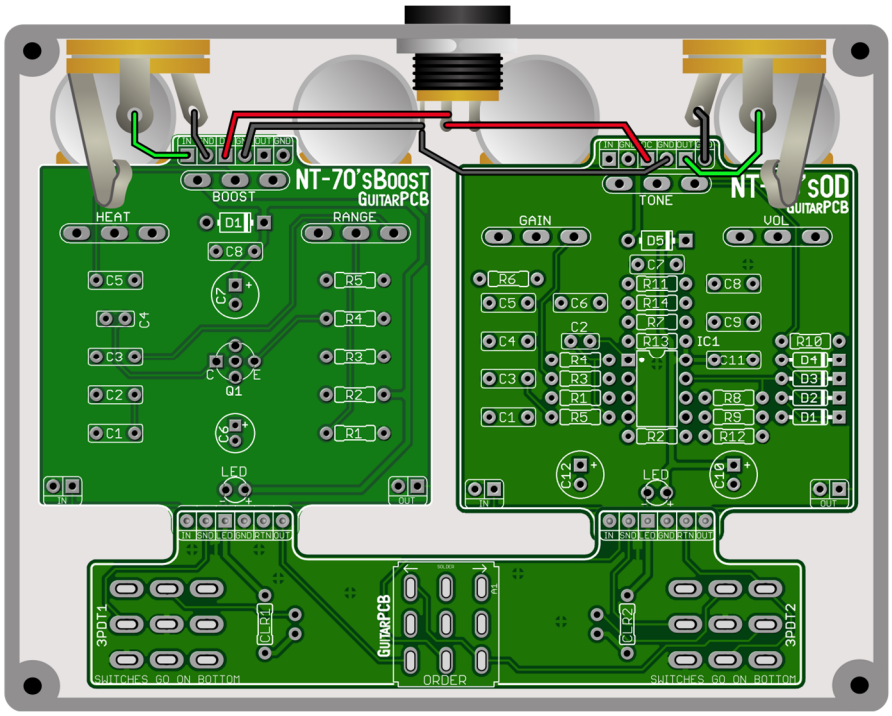
GuitarPCB Presents

Dual Combo Series Beano Bundle

Prepare for an extraordinary fusion of two iconic designs. This feature-rich combination of legendary circuits was designed to spark creativity and inspire you. All packed into a compact 1590BB2 footprint.

- **The Blues Breaker section evokes vintage amp magic, enriching your sound with sweetness and grit, inspired by icons such as Clapton, Moore, Mayer, and many others.**
- **The unique Rangemaster section provides precise control over Volume, Gain, and Frequency, surpassing those used by numerous guitar legends of the 70s and 80s.**
- **Combining both circuits unleashes a vast array of versatile tones unmatched by any other combination. You simply must experience it to believe its power.**
- **Equipped with built-in Order switching, you have complete control over your tone. It's like having an entirely different pedal at the flip of a switch. (Use a short shaft / stubby style switch)**

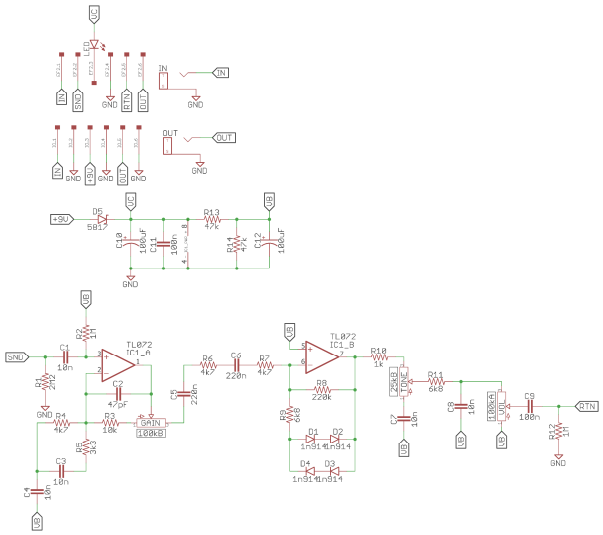


Order switching is built-in, with pin header connections making wiring a breeze.

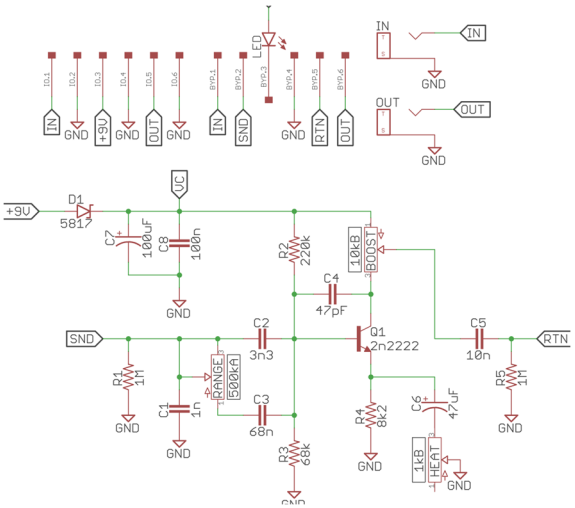
Ideal for a 1590BB2 enclosure, featuring the same dimensions as a 1590BB but with 125B clearance for jacks.

Included with each Dual Combo purchase. – (2) Mainboards, (2) pin headers, (1) Dual wiring board.

Schematic Bluesbreaker:



Schematic Rangemaster Boost



Bill of Materials OD Bluesbreaker:

Part	Value	Part	Value	Part	Value
R1	2M2	R14	47k	D1 - D4	1N4148
R2	1M	C1	10n	D5	1N5817
R3	10k	C2	47pF	IC1	TL072
R4	4k7	C3	10n		
R5	3k3	C4	10n	LED	Status LED
R6	4k7	C5	220n		
R7	4k7	C6	220n	VOL	A100K
R8	220k	C7	10n	TONE	B25K
R9	6k8	C8	10n	GAIN	B100K
R10	1k	C9	100n		
R11	6k8	C10	100uF	6-pin	pin header
R12	1M	C11	100n		
R13	47k	C12	100uF	CLR	1k8-4k7

Bill of Materials Rangemaster Boost:

Part	Value	Part	Value	Part	Value
R1	1M	C2	3n3	LED	Status
R2	220k	C3	68n	6-pin	pin header
R3	68k	C4	47pF	Q1	2n2222
R4	8k2	C5	10n	CLR	1k8-4k7
R5	1M	C6	47uF	RANGE	A500K
D1	1N5817	C7	100uF	BOOST	B10K
C1	1n	C8	100n	HEAT	B1K

*** You'll need a 3PDT toggle switch On/On (solder lug version) with a short shaft for order switching on the dual wiring board PCB.**

Build Notes:

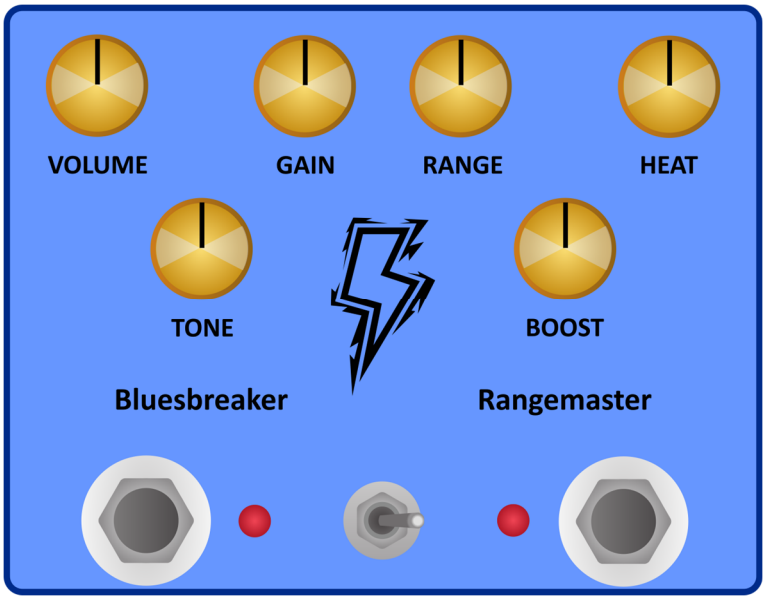
1. **Solder the short side of both pin headers to the top of each main board, pointing upward. Next, solder all three switches, and (CLRs), to the dual wiring board. Crimp hang the LEDs (optional) if mounting to the dual wiring board.**

2. **Since the Dual PCB offers an additional LED Status location, you can choose your preferred setup. Whichever option you pick, solder a small jumper on the unused LED pads. (CLRs) are essential regardless of the installation choice.**

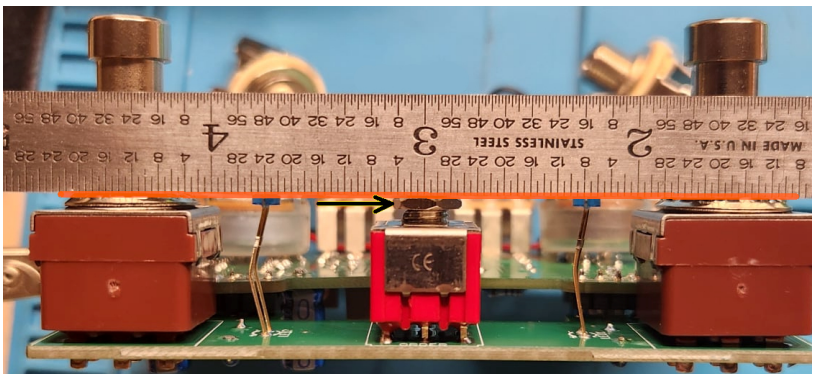
3. **Remove <u>both nuts</u> on each of the 3PDT foot switches for the best height match. Adjust the height of the Order Switch height adjustment nut so it is level with the foot switches (see photo next page). Do not over-tighten.**

4. **Install the Dual PCB by sliding it over both pin headers. Once the foot switches and toggle switch are secured correctly within the enclosure, proceed to solder the long side of the pin header to the dual wiring board.**

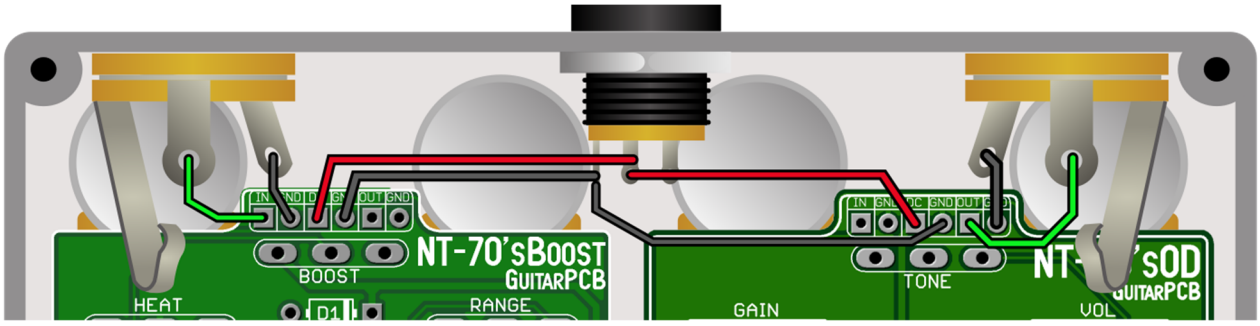
5. **There are two (CLR) Current Limiting Resistors crucial to protect and adjust the brightness of their corresponding status LED. You may use a value of 1k8 (Bright) to 4k7 (Dim).**



Easy Pre-installation Height Adjustment



Easy Wiring Diagram



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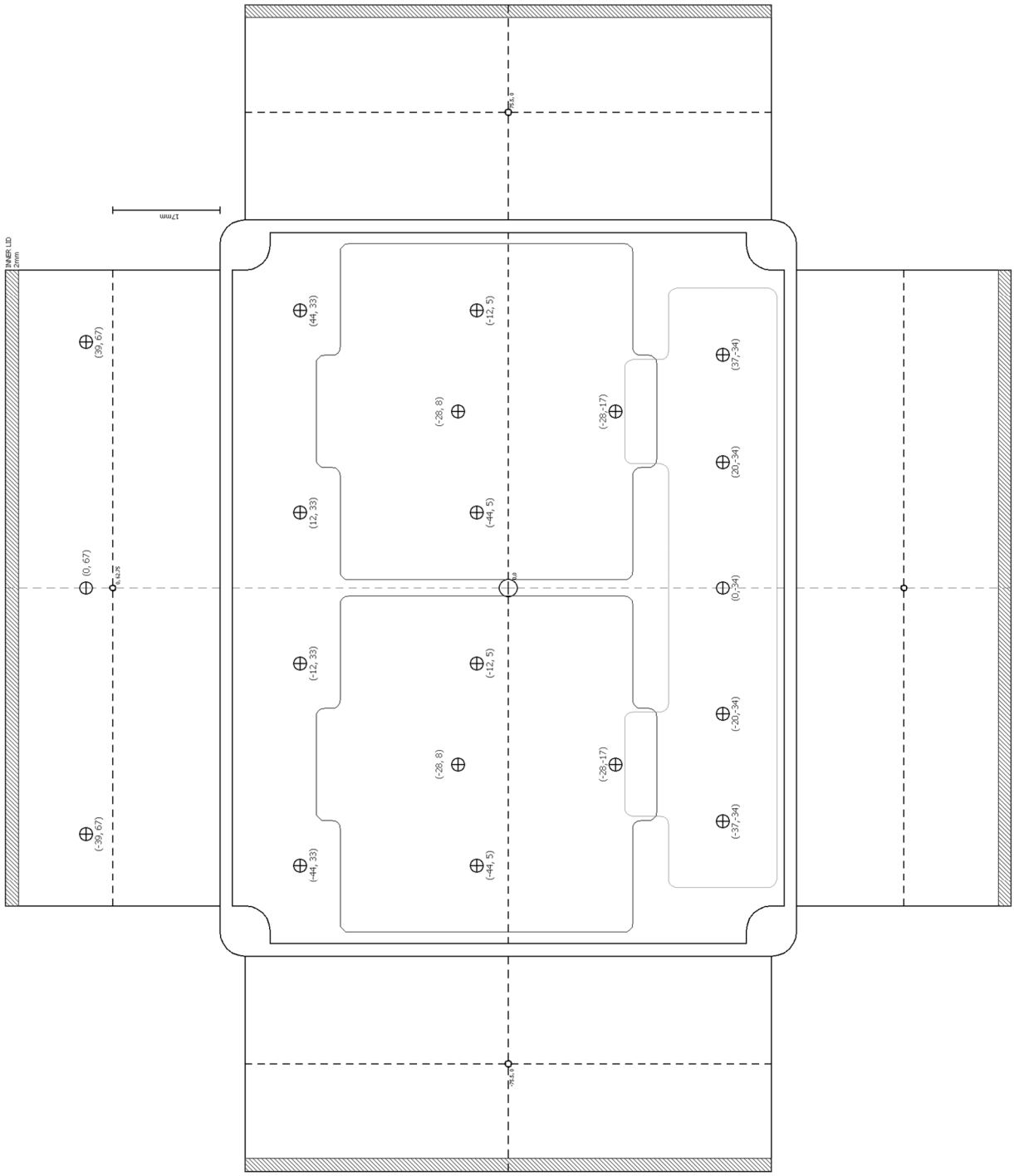

1590BB2 Drill Template

Note: Each side features drill hole patterns suitable for either a three-knob or four-knob circuit.

Study the template and drill only the holes you need for your project.

You can find a link to a Tayda Drilled enclosure on the GuitarPCB shop page. You must install the status LEDs on the dual wiring board only if you order the drilled enclosure.