GuitarPCB Presents

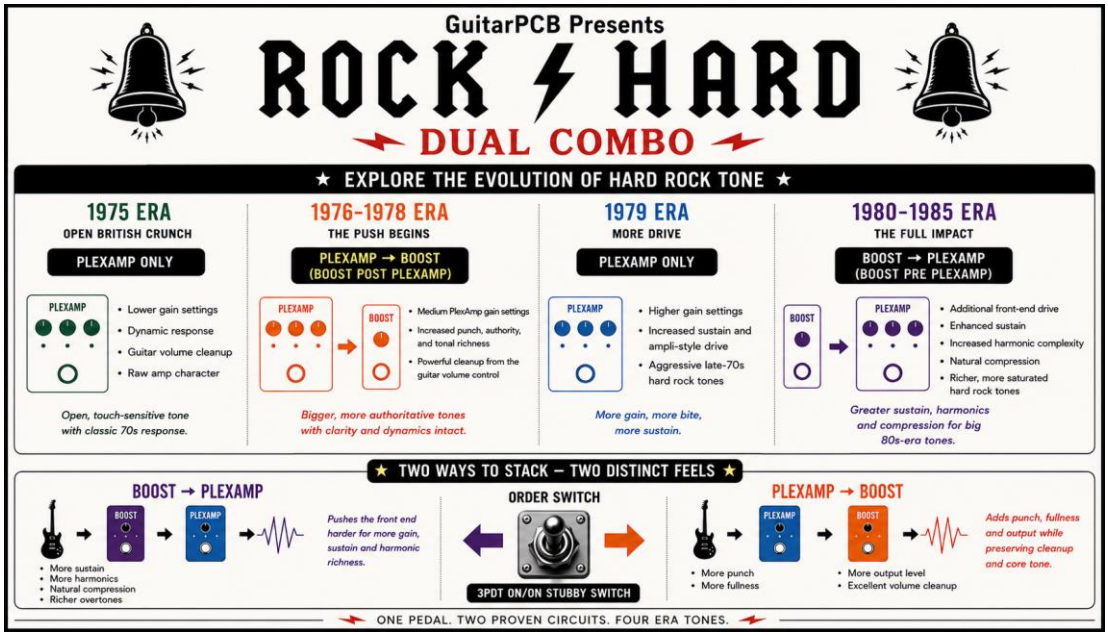
ROCK ⚡ HARD - Dual Combo

Introducing the **ROCK⚡HARD** Dual Combo, combining the PlexAmp and Boost circuits to explore the evolution of hard rock tone from the mid-1970s through the early 1980s. Built-in order switching unlocks an impressive range of vintage tone-shaping possibilities.

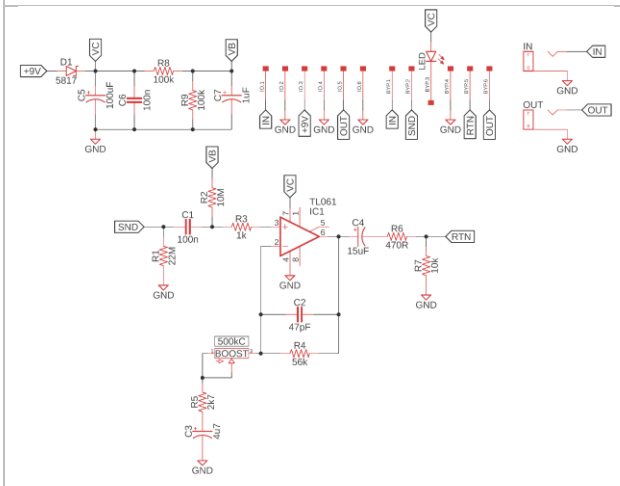
The PlexAmp delivers authentic British amplifier-style crunch with exceptional touch sensitivity and dynamic guitar-volume cleanup. Used alone, it captures the open, responsive character that defined many classic hard rock recordings.

The Boost is best viewed as a gain-staging tool rather than a simple volume boost. Placed before the PlexAmp, it increases sustain, harmonic complexity, note bloom, and natural compression by driving the input stage harder. This same principle helped shape many classic hard rock tones through front-end preamps such as Angus Young's Schaffer-Vega wireless system and Ritchie Blackmore's Aiwa TP-1011 tape recorder, used on stage and in the studio for decades.

Placed after the PlexAmp, the Boost adds punch, fullness, tonal richness, and output level while preserving the core PlexAmp character. The result is a bigger, more authoritative sound with exceptional guitar-volume cleanup, allowing heavily driven tones to retain clarity, body, and impact as the guitar is rolled back.



BOOST

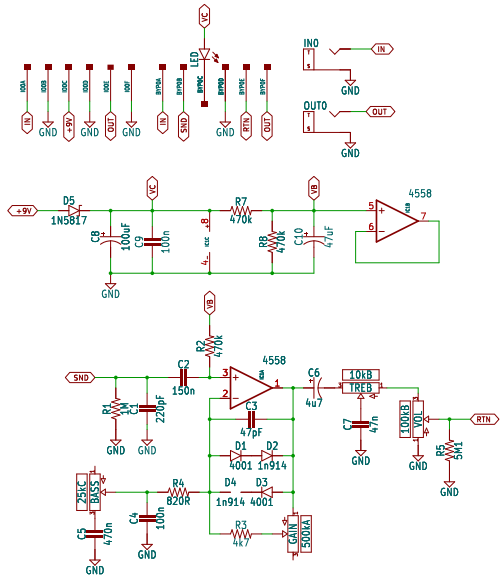


Part	Value
R1	22M
R2	10M
R3	1k
R4	56k
R5	2k7
R6	470R
R7	10k
R8	100k

Part	Value
R9	100k
C1	100n
C2	47pF
C3	4u7
C4	10u - 15u
C5	100u
C6	100n

Part	Value
C7	1uF
D1	1N5817
IC1	TL071
BOOST	C500K
LED	Status
*CLR x 1	1k8 - 4k7

PlexAmp



Part	Value
R1	1M
R2	470k
R3	4k7
R4	820R
R5	5M1
R7	470k
R8	470k

Part	Value
C1	220pF
C2	150n
C3	47pF
C4	100n
C5	470n
C6	4u7
C7	47n
C8	100uF

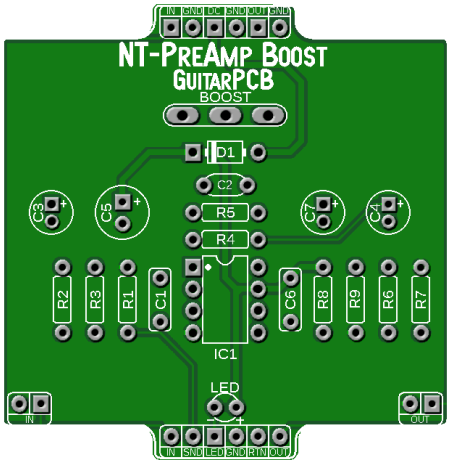
Part	Value
C9	100n
C10	47uF
VOL	B100K
GAIN	A500K
BASS	C25K
TREB	B10K
IC1	4558

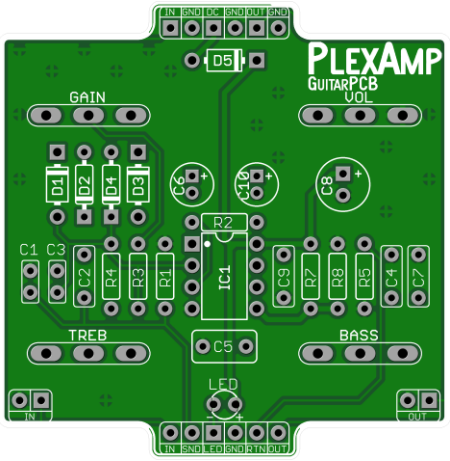
Part	Value
D1	1N4001
D2	1N914
D3	1N4001
D4	1N914
D5	1N5817
LED	Status
* CLR x1	1k8-4k7

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

Note: R1 (22MΩ): The boost circuit uses a 22MΩ carbon film resistor. If unavailable, substitute two 10MΩ resistors in series (20MΩ) with no noticeable difference in performance. Original KOA Speer CF1/4C226J 22MΩ carbon film resistors are available from Mouser and DigiKey. A 10uF or 15uF may be used at C4 of the Preamp Boost without affecting tone.

BASS POT: In place of the C25K pot, a C20K pot may be used since potentiometers have a wide tolerance. A W taper is also suitable, as it combines C taper behavior for the first half of its rotation and A taper for the second.

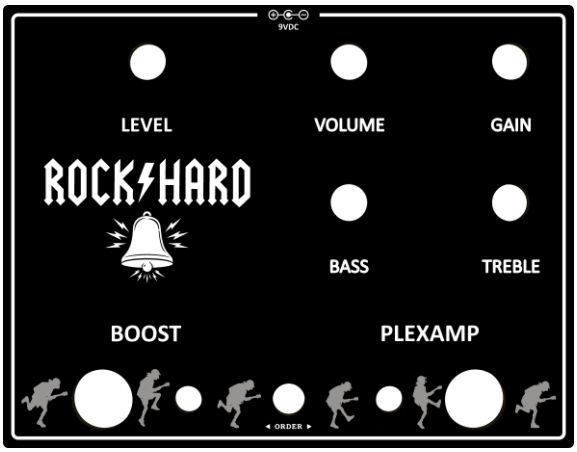


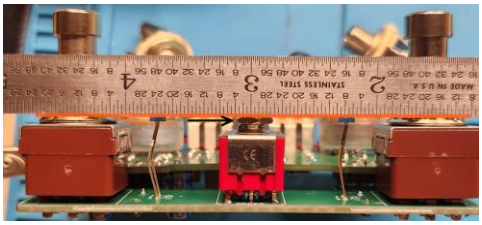


Build Notes:

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. Dry hang the LEDs (optional) if mounting to the dual wiring board.
2. Since the dual wiring board offers an additional LED location for each circuit, 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 location choice.
3. If you order the Tayda drilled enclosure with my link (see shop page) you must install the Status LEDs on the wiring board.
4. Remove both nuts on each of the 3PDT foot switches for the best height match. Adjust the height of the inner Order Switch adjustment nut so it is level with the foot switches' height relative to the enclosure. Do not over-tighten the outer Switch nut.
5. Install the wiring board by sliding it over both pin headers. Once the foot switches and toggle switch are tightened within the enclosure, proceed to solder the long side of the pin header to the dual wiring board.
6. * 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).

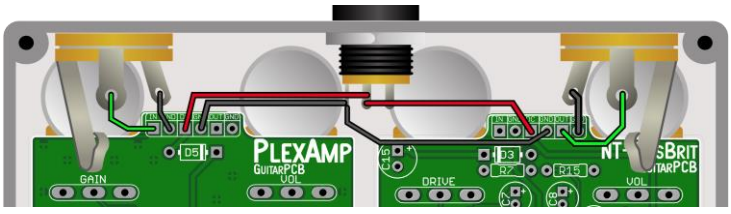
Need help or inspiration? Visit the GuitarPCB Community Forum to see other members build examples, ask questions, and share your results. Also check out the Guides Page for additional articles, build tips, and troubleshooting information.
https://guitarpcb.com/community

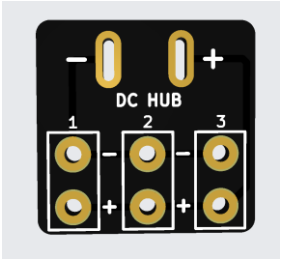




Order Switch Height Adjustment

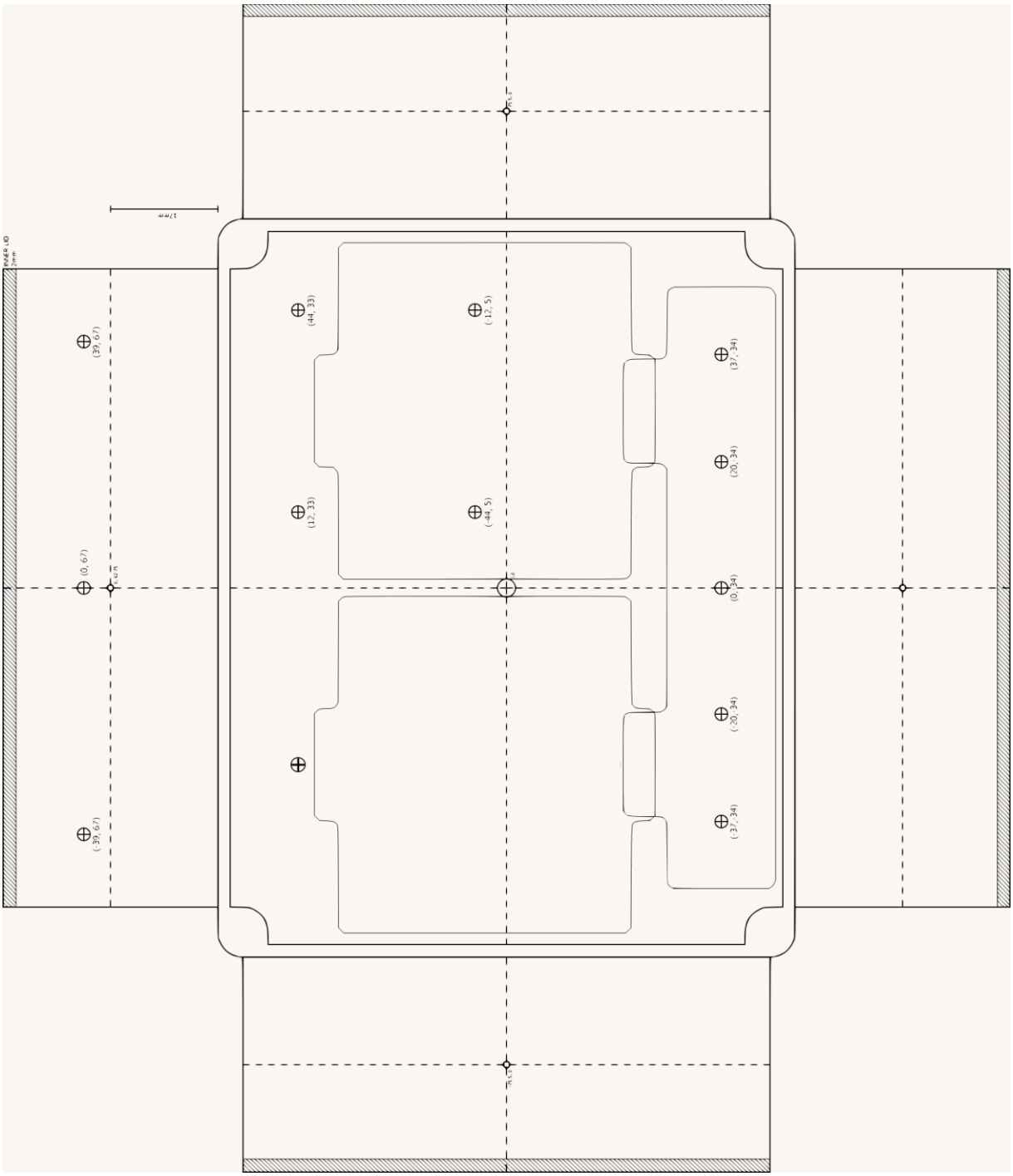
Easy Wiring Diagram





New DC Hub available now for easier DC routing to both circuits.

Designed for the 2.1mm low profile jack.



1590BB2 Drill Template

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