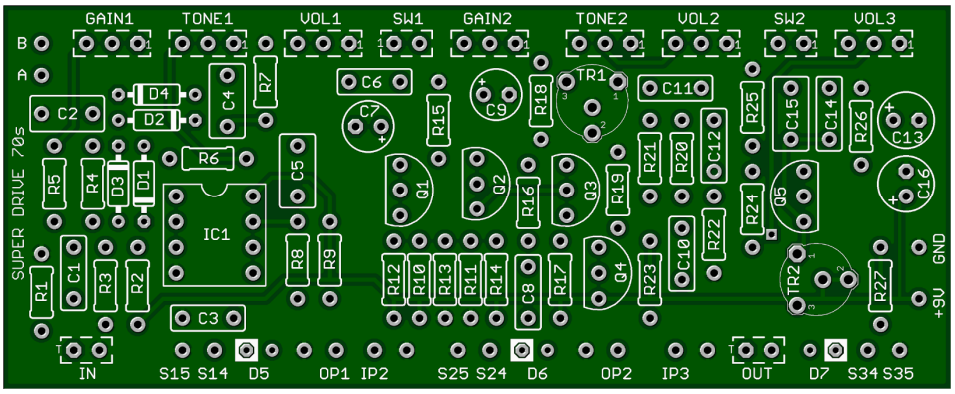
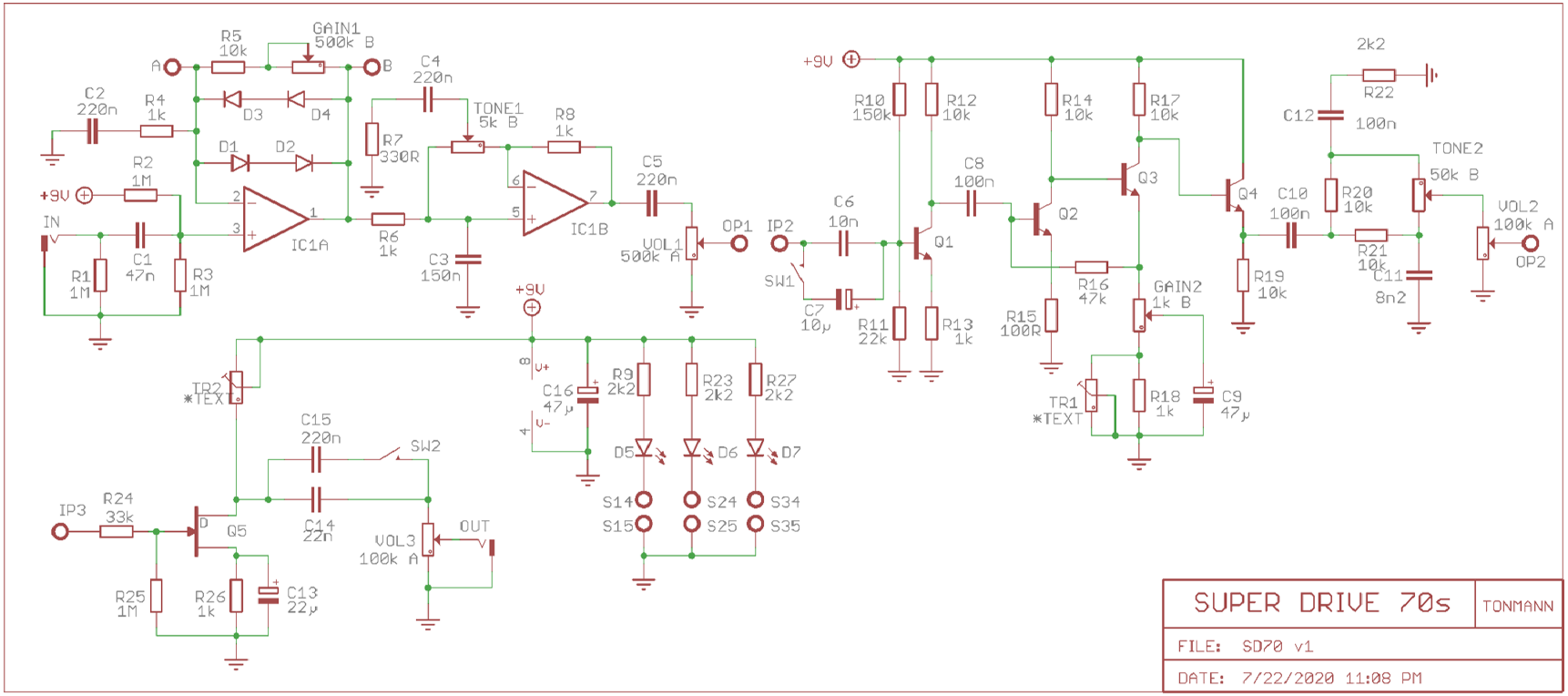
SuperDrive 70’s



Board Dimensions (W x H) 3.7” x 1.5” ca. 94 mm x 38 mm

A fantastic all in one combo pedal that fits easily in a 1590DD and can be slipped into a Gig Bag and taken anywhere to sound fantastic on any rig. Recreate tones produced by Jimmy Page, the Rolling Stones, Jimi Hendrix, Eric Clapton, David Gilmour, Stevie Ray Vaughan and Eric Johnson, all in one box. This board provides the best variety of playable sounds from the 70's and beyond.
The smooth fuzz portion uses easy to find transistors. The dynamics can be controlled by pick attack using the guitar's volume control. The Overdrive section of this pedal provides a warm Marshall™ style tube crunch. The Boost section is provided by our famous Stage 3 Booster which will provide clean, usable Boost especially for those long cable runs.

R1	1M	R16	47k	C1	47n	IC1	JRC4558
R2	1M	R17	10k	C2	220n		
R3	1M	R18	1k*	C3	150n	Q1 – Q4	2N5089
R4	1k	R19	10k	C4	220n	Q5	J113
R5	10k	R20	10k	C5	220n		
R6	1k	R21	10k	C6	10n	D1 – D4	1N914
R7	330R	R22	2k2	C7	10µ	D5 – D7	LED
R8	1k	R23	2k2	C8	100n		
R9	2k2	R24	33k	C9	47µ	GAIN 1	500k Lin
R10	150k	R25	1M	C10	100n	TONE 1	5k Lin
R11	22k	R26	1k	C11	8n2	VOL 1	500k Log
R12	10k	R27	2k2	C12	100n	GAIN 2	1k Lin
R13	1k			C13	22µ	TONE 2	50k Lin
R14	10k	TR1	3k*	C14	22n	VOL 2	100k Log
R15	100R	TR2	10k	C15	220n	VOL 2	100k Log
				C16	47µ		
						SW1 – SW2	SPST



SUPER DRIVE 70s	TONMANN
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Build Notes:

- **TR1 / R18** – either the trim pot or fixed resistor is used **<u>but not both</u>**. When using TR1 the trim pot should be set so that the voltage reading at the collector of Q3 is approximately 5.2V.

- **IC1** –We suggest a JRC4558 but there are plenty of pin-compatible replacements that would fit in here- TL072, NE5532, JRC4559, OPA2134 etc. If you socket, you can try different op amps.

- **D1 – D4** –1N914 (1N4148 will do equally well). LED, germanium or combinations of both can be tried. To make wiring your own unique clipping diode combinations easier we added A and B pads to the circuit board so that diodes D1 – D4, along with any switching arrangement, would be installed on a daughter board like our RotoTone or DPDT daughterboards which would then be connected to pads A and B. See Main Wiring Diagram. A & B pads are left alone if not used.

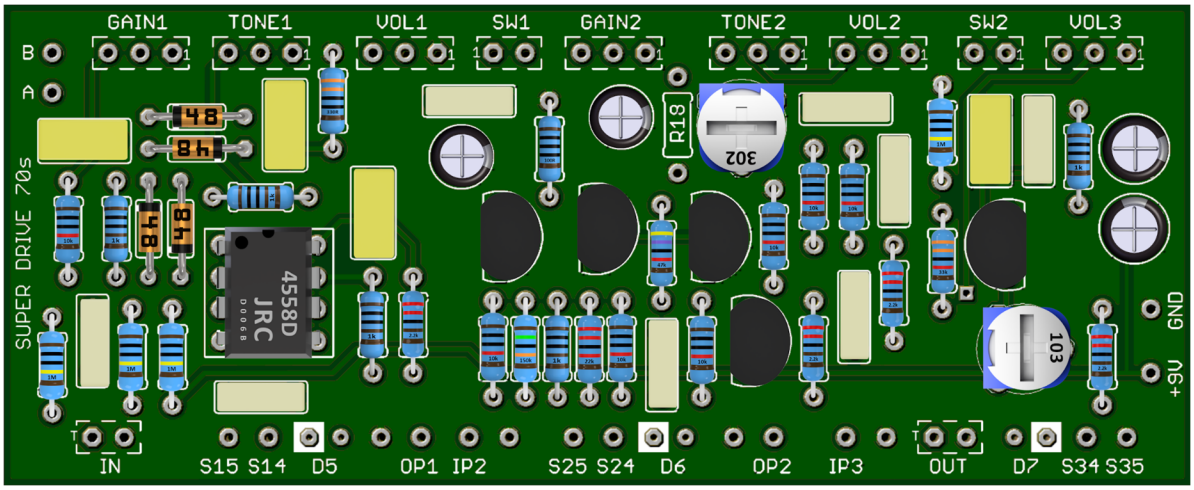
- **TR2** – should be initially set so that the voltage reading on the drain of Q5 is **4.5V - 5v**. We suggest using J113 for a clean boost however a good mod idea to add more grit is to try 2N5457 or J201 respectively. Simply place your DMM's Black Probe on any Ground and place the Red Probe on the Drain lead while turning TR2 (10k) till you can dial in the desired voltage.

- **C7 in conjunction with SW1 will add a Bass Boost to the Fuzz circuit.** If you do not require a Bass Boost for the Fuzz section then simply do not install **C7 or SW1.**

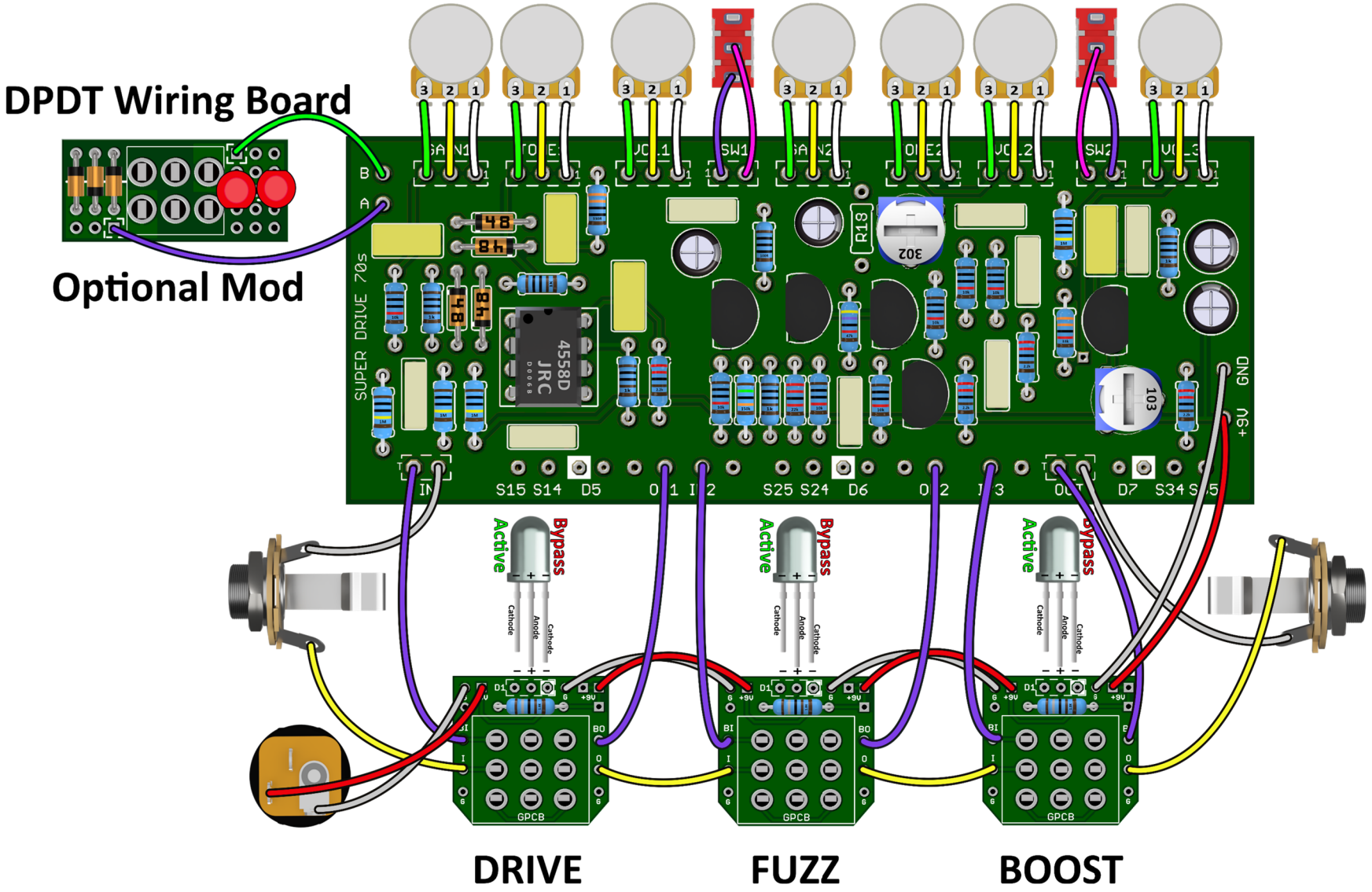
- **C15 allows more low Bass frequency to pass through.** Allowing you to tighten up your tone when not selected. If you do not want to use this feature then simply do not install **C15 or SW2.**

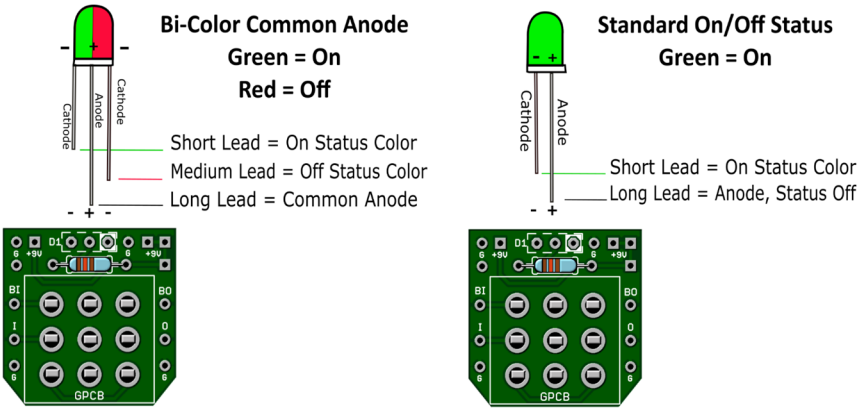
We highly recommend using **(3)** of GuitarPCB's **3PDT Standard or Vari-Brite** Boards for this project so you will have much less wiring and be able to mount LEDs directly to the 3PDT Wiring Boards. In this case **R9, R23, R27** and the three Status LEDs, **D5 – D7** should not be installed.

You may still wire it without using our Wiring Boards in which case populate the board using the CLR resistors **R9, R23 and R27** as well connecting the Status LEDs **D5, D6 and D7** to the Main Board. Be sure to place the Cathode Lead into the White Shaded Pad. You will also need to wire S1**4** & S1**5** to the **DRIVE** footswitch, S2**4** & S2**5** to the **FUZZ** footswitch and S3**4** & S3**5** to the **BOOST** footswitch.



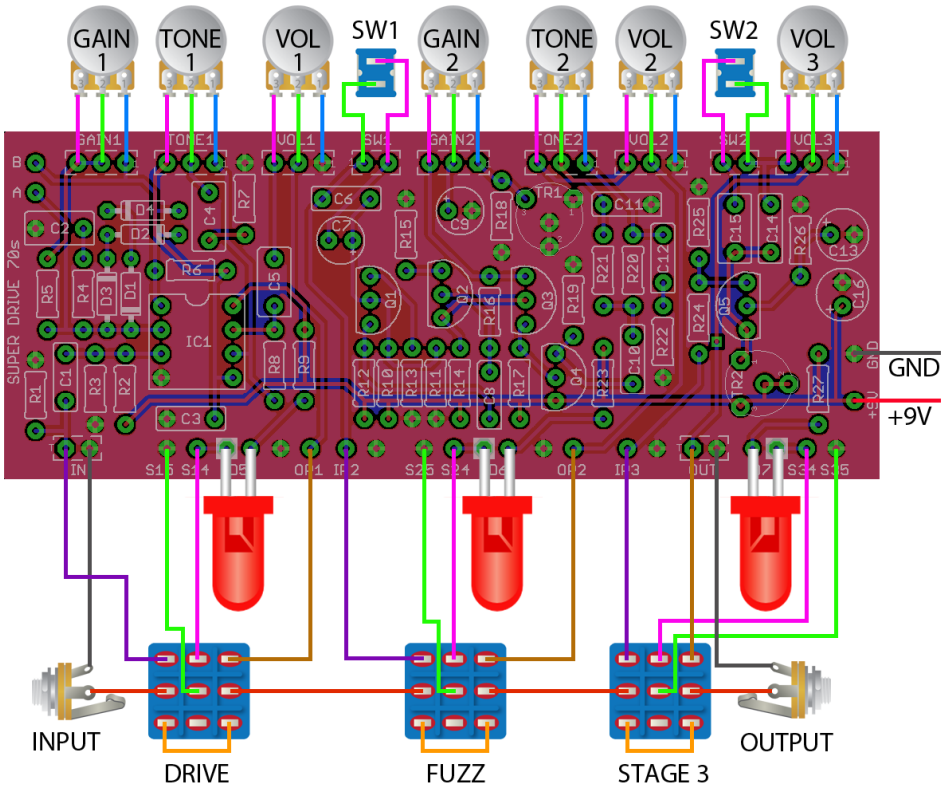
This image is High Resolution. Zoom in to see resistor color bands and values.

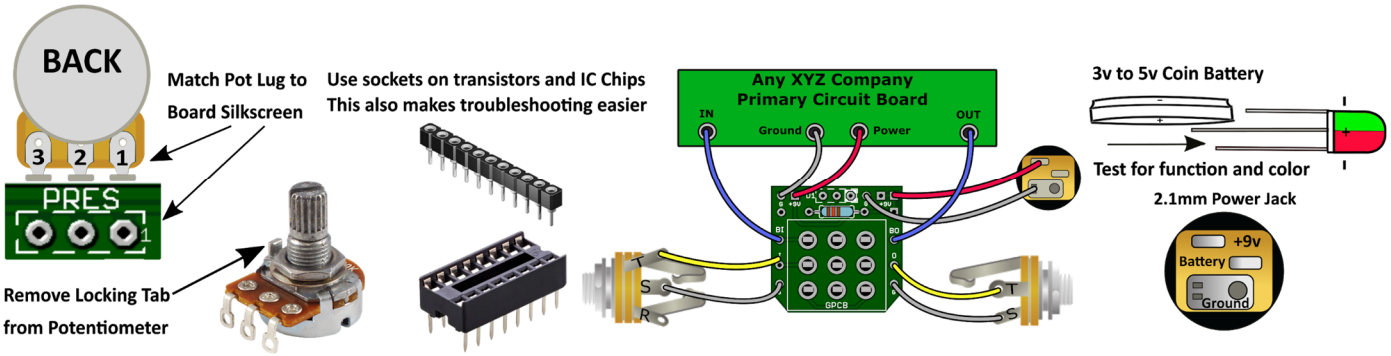

DPDT Wiring Board
Optional Mod
SUPER DRIVE 70s
4558D
JRC
R18
302
103
GND
+9V
Bypass
Active
Cathode
Anode
GPCB
DRIVE
FUZZ
BOOST



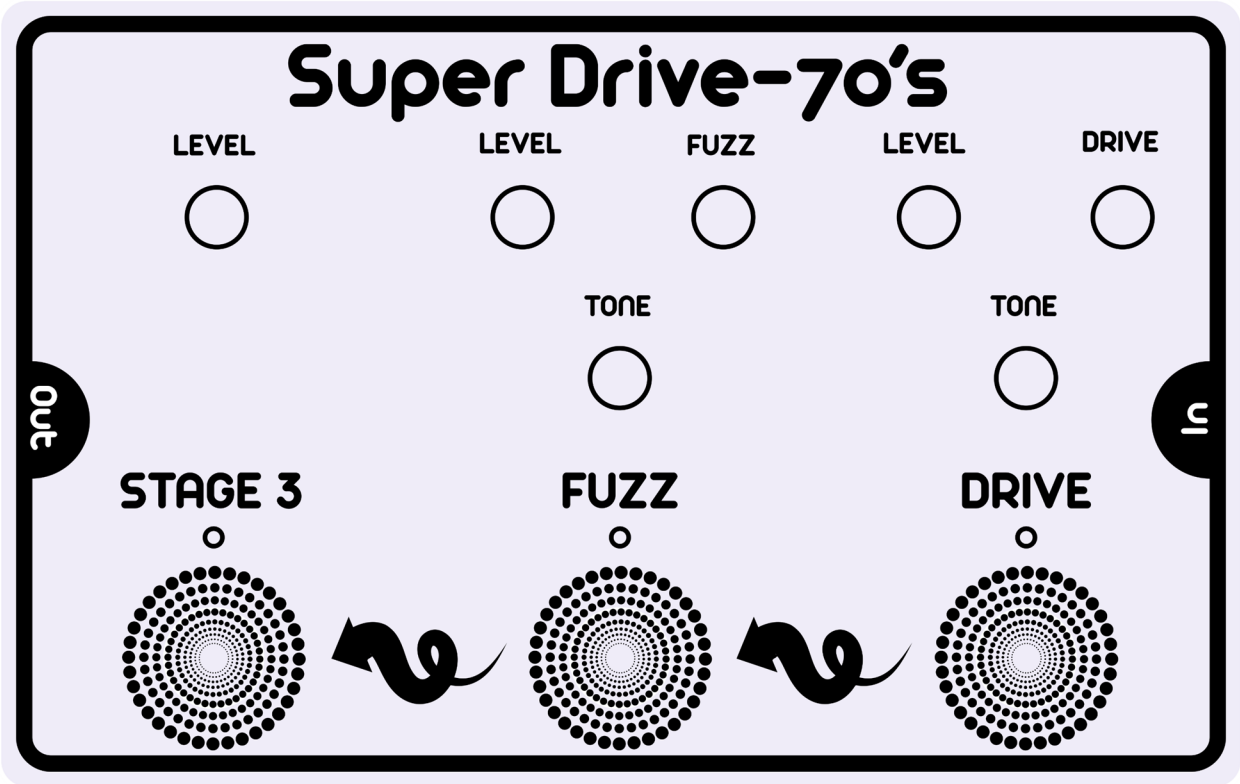
Be sure your In/Out Jack wiring is correct. A Stereo Jack (for battery use only) has a RING lug which is used to connect to the battery ground. If you do not intend to use a battery there is no need for a Stereo Jack. If using Stereo then only use the Tip and Sleeve lugs.

Diagram for wiring Standard LEDs to Main Board. Be sure to place the **Cathode Lead** into the White Shaded Pad. You will also need to wire S1**4** & S1**5** to the **DRIVE** footswitch, S2**4** & S2**5** to the **FUZZ** footswitch and S3**4** & S3**5** to the **BOOST** footswitch.





Enjoy this free sample enclosure art. 1590DD size enclosure.



Need a kit?

USA – Check out PedalPartsAndKits for all your needs.
Europe – Das Musikding carries both boards and kits as a service to our Europeans friends.
Australia - PedalPartsAustralia.com carries GuitarPCB Boards and Kits direct.
If they do not have a KIT listed send them a note asking if they can help you out.