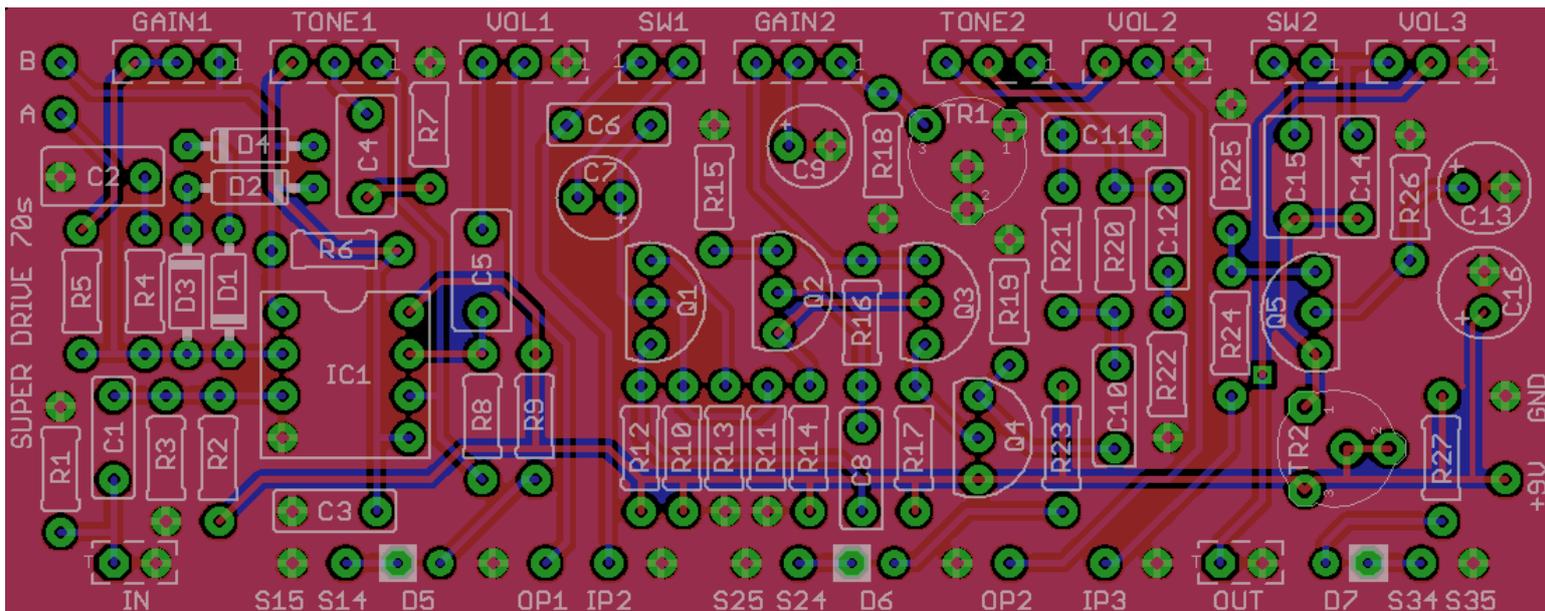


SUPER DRIVE 70s

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

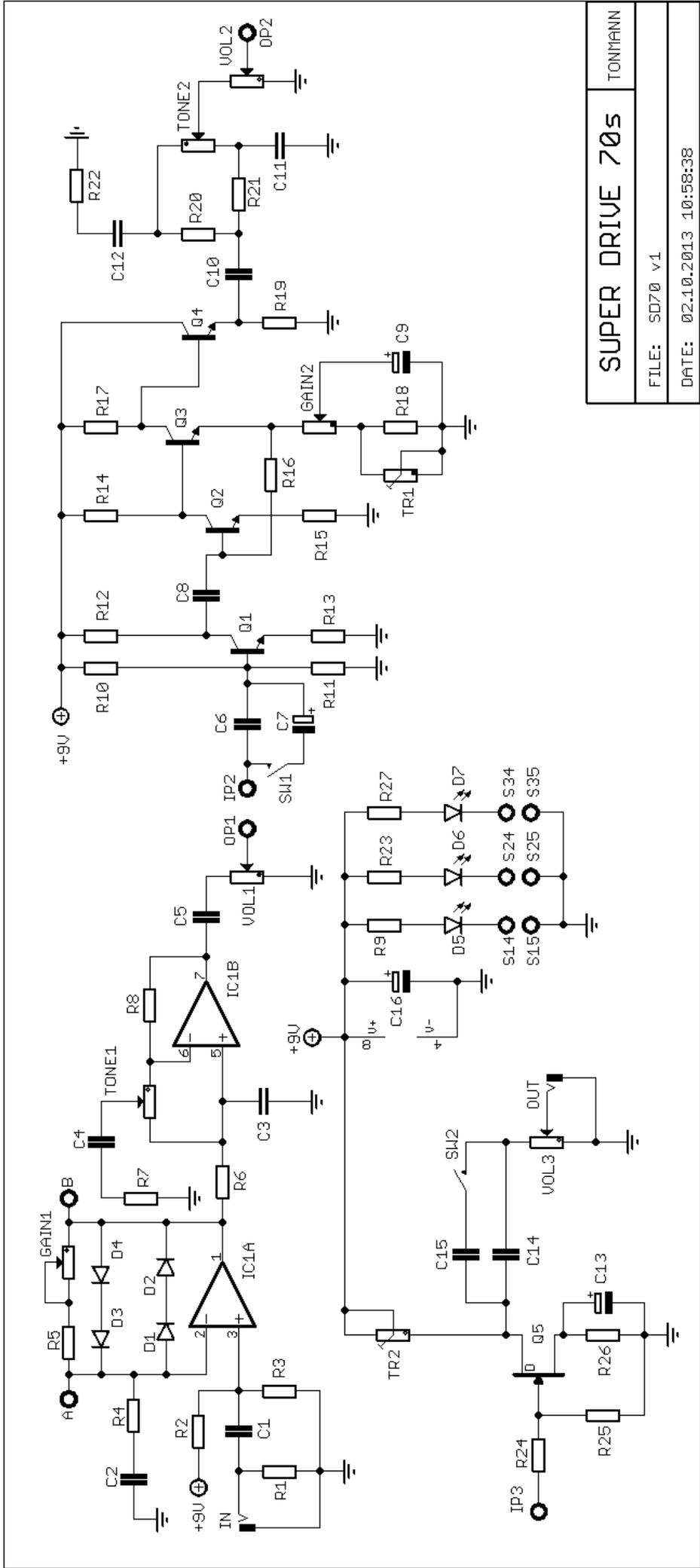


The above image can be downloaded from

http://i647.photobucket.com/albums/uu198/tonmann/GuitarPCB%20Boards/SD70sLayout_zpse931de57.png

Printing at 300dpi will assist you in your enclosure layout.

R1	1M	R16	47k	C1	47n	63V	IC1	JRC4558, NE5532, TL072, OPA etc...
R2	1M	R17	10k	C2	220n	63V	Q1 – Q4	2N5089
R3	1M	R18	1k*	C3	150n	63V	Q5	MPF102
R4	1k	R19	10k	C4	220n	63V	D1 – D4	1N914
R5	10k	R20	10k	C5	220n	63V	D5 – D7	On/Off LED
R6	1k	R21	10k	C6	10n	63V	GAIN 1	500k Lin
R7	330R	R22	2k2	C7	10μ	16V	TONE 1	5k Lin
R8	1k	R23	2k2	C8	100n	63V	VOL 1	500k Log
R9	2k2	R24	33k	C9	47μ	16V	GAIN 2	1k Lin
R10	150k	R25	1M	C10	100n	63V	TONE 2	50k Lin
R11	22k	R26	1k	C11	8n2	63V	VOL 2	100k Log
R12	10k	R27	2k2	C12	100n	63V	VOL 3	100k Log
R13	1k			C13	22μ	16V		
R14	10k	TR1	2k5*	C14	22n	63V		
R15	100R	TR2	5k	C15	220n	63V		
				C16	47μ	16V		
							SW1 – SW2	SPST



SUPER DRIVE 70s

TONMANN

FILE: SD70 v1

DATE: 02.10.2013 10:58:38

MODIFICATIONS

IC1 – the original called for an “Unknown JRC” so, at a good guess it’s a mojo JRC4558. There are plenty of pin-compatible replacements that would fit in here- TL072, NE5532, NE4558 etc. If you use a socket, you can try different op amps.

D1 – D4 – 1N914 (1N4148 will do as well) can be modified to your taste e.g. LED, germanium or combinations of both. Ideas can be found on the www.guitarpcb.com forum. To make wiring easier pads A and B have been added to the circuit board so that diodes D1 – D4, along with any switching arrangement, would be installed on a daughter board which would then be connected to pads A and B.

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

TR2 – should be initially set so that the voltage reading on the drain of Q5 is a minimum of 4.5V adjusting to taste upward should be made from there. Some prefer as high as 6.5v

Q5 – While an MPF102 is recommended for a clean tone boost to enhance your overall Guitar & Amp tone, as well as enhance the Fuzz and Drive sections, you may also try a 2N5457 for a slightly dirtier Boost, or a J201 for an even more distorted boost tone. Proper biasing is required. See **TR2**.

C7 and C15 add two bass boost functions to the circuit. If one or neither is required the capacitors along with SW1 / SW2 shouldn’t be installed. C7 is more of a traditional Fat Boost (Fuzz circuit), while C15 (Boost Section) at 220n is there for a detuned guitar. Drop D or Open C for example, so in this case a switch would be handy when switching back to a standard tuned guitar. If you play only in standard tuning the Bass boost will not be very noticeable and you may simply place a 22n to 100n capacitor at C14. Leave out C15 as well as SW2 in this case. No Jumpers required.

If you are using GuitarPCB’s 3PDT Wiring Boards R9, R23, R27 and the three LEDs, D5 – D7 should not be installed.

Tone 1 – The feel of this tone control is that it cuts off Bass Frequencies as you roll it off counter clockwise. If you prefer a more “traditional” tone control feel simply switch lugs 1 and 3 around.

SuperDrive 70’s tandem usage tips.

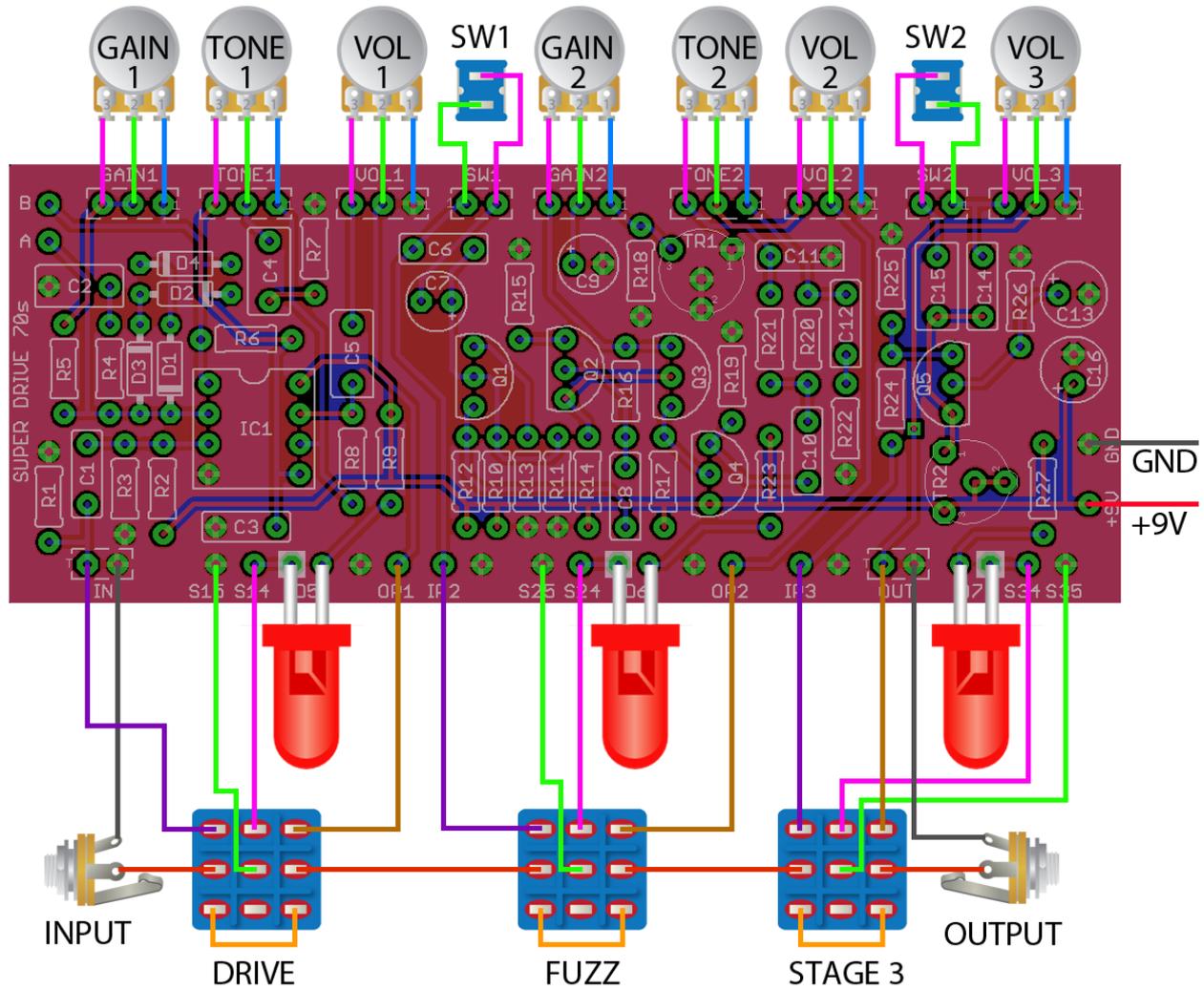
Please note that all three circuits may effectively be used in tandem. Much of this is dependent on your Guitar, Amp, Pickups, Volume and Playing Style. As you start turning Gain and Boost controls up towards full rotation you will begin to introduce feedback or squealing when used in tandem.

To avoid this, learn to fine tune your settings to match your guitar, pickups and amplifier so that you may use all three circuits in together effectively. Using your volume control on your guitar will also yield excellent results. This circuit has plenty of gain so perhaps start with 30-50% rotation on the Gain potentiometers and experiment from there. The Boost section typically is used at 60-70% rotation (equal, or just above unity gain).

Once you have adjusted the controls to match your rig you should have no problem using any combination of 1, 1+2, or all 3 circuits together. You will also find that even with the Boost engaged both the Fuzz & Drive circuits will clean up nicely well when using the Volume control on your guitar.

As always check back on the Super Drive 70’s section in the [Layout Gallery](#) for any future updates and modification ideas. These will be added separately from this standard build document.

WIRING



GuitarPCB - [3PDT Wiring boards](#) will give you additional wiring options. They are not necessary, however the extra 9v. & ground pads are handy should you decide to mount the LEDs directly to the boards, which provide a firm, secure LED to enclosure assembly without the need for adhesives.

