
GuitarPCB presents

D.S.O.T.M.

Welcome to my NostalgiaTone Artist series. The **D.S.O.T.M.** is here to give you the ultimate sonic experience. We have combined the best, squeezing three incredible circuits into an artist-defining combo.

WattAmp: Experience the magic of early '70s Arena Rock with the WattAmp circuit - your gateway to authentic tube amp tones! Carefully crafted to mirror the iconic sound of a legendary player during his HiWatt era, this pedal packs all the punch, growl, and dynamic response of the cranked vintage amplifier. With its intuitive controls, dial in your perfect foundation preamp tone for those unmistakable boosted amplifier sounds that define an era. Elevate your tone, spark your creativity, and tap into the power of this legendary sound.

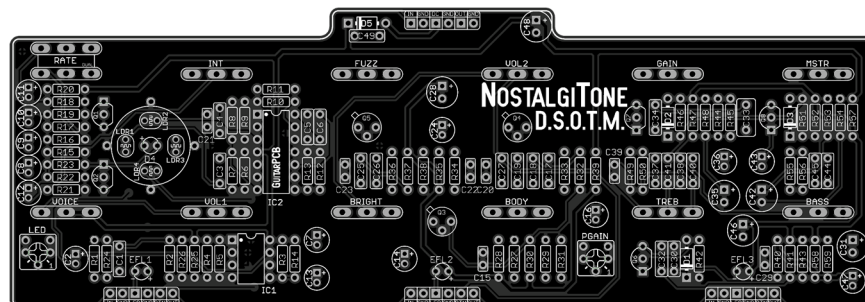
Luna Fuzz: Experience the Luna Fuzz, inspired by the legendary guitar tones of a certain player during the early '70s. This circuit offers a versatile range of sounds with modern design features. Unlike traditional silicon fuzz pedals, the Luna Fuzz delivers a thick, substantial sound without any temperamental behavior, seamlessly integrating with the WattAmp and Phaser for a complete sonic experience. With its vast range spanning from tight, aggressive overdrive to ultra-saturated fuzz, the Luna Fuzz opens endless possibilities for tone exploration.

Phaser: My Phaser utilizes LDRs (Light Dependent Resistors) to deliver smooth transitions between phase shifts, enhancing modulation for a more organic and delightful effect. By utilizing LDRs, we ensure easy availability of essential components, keeping costs reasonable. Moreover, it grants precise control over modulation speed and depth. Experience reduced noise levels, yielding a cleaner, more transparent sound. Positioned correctly in the signal chain, our Phaser faithfully reproduces the classic Phaser tone you would expect when used in tandem.

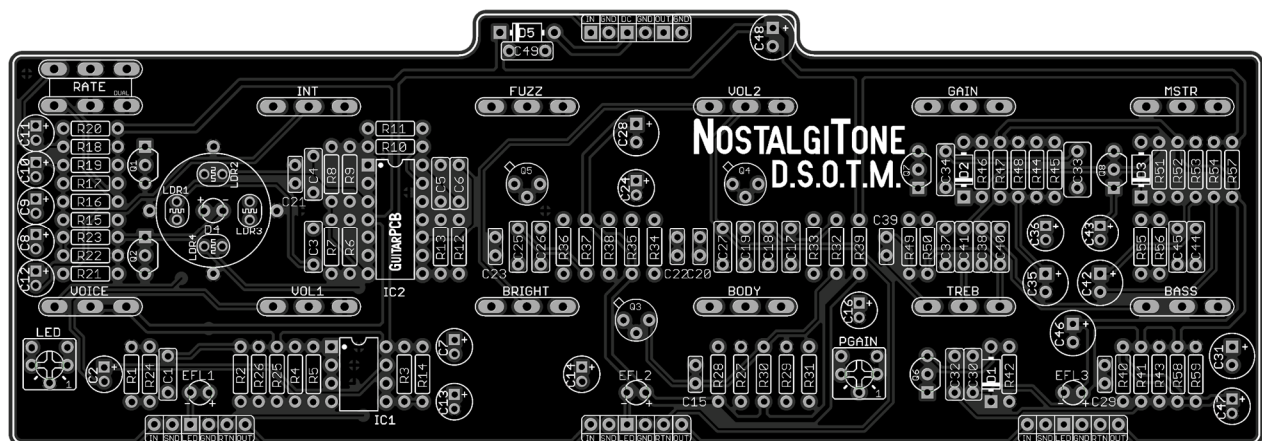
🔧 **Easy Wiring:** No more daunting wiring hassles! Say hello to beauty under the hood. Enjoy all-analog tones with modern features that will slip into your gig bag, ensuring you are always ready to unleash your musical magic.

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

Do not settle for the ordinary when you can have extraordinary. Elevate your tone with the **NostalgiaTone** series combo builds from GuitarPCB. Get yours today and discover a world of sonic possibilities like never before!



Part	Value	Part	Value	Part	Value	Part	Value	Part	Value	Part	Value
R1	1M	R25	10k	R49	100k	C15	100pF	C39	470pF	MSTR	A100K
R2	1M	R26	10k	R50	10k	C16	22uF	C40	10n	GAIN	A500K
R3	100k	R27	1M	R51	10M	C17	5n6	C41	100n	TREB	B500K
R4	56k	R28	470k	R52	3k3	C18	4n7	C42	100uF	BASS	A500K
R5	10k	R29	100k	R53	3k3	C19	220n	C43	10uF		
R6	47k	R30	10k	R54	120R	C20	470pF	C44	2n2	VOL2	A100K
R7	47k	R31	100R	R55	12k	C21	100pF	C45	2n2	FUZZ	C1K
R8	47k	R32	820R	R56	12k	C22	220pF	C46	100uF	BODY	A100K
R9	47k	R33	100R	R57	47R	C23	220pF	C47	10uF	BRIGHT	B100K
R10	47k	R34	100k	R58	62k	C24	22uF	C48	220uF		
R11	47k	R35	56k	R59	100k	C25	15n	C49	100n	INT	B25K
R12	47k	R36	56k			C26	3n3			RATE	B100K Dual
R13	47k	R37	2k7			C27	2n2	D1 - D3	1N4739	VOL1	A100K
R14	100k	R38	10k	C1	100n	C28	100uF	D4	Yellow LED	VOICE	B10K
R15	3k3	R39	100R	C2	1uF	C29	330pF	D5	1N5817		
R16	220k	R40	10M	C3 - C6	10n	C30	100n	IC1	TL072	LDR 1-4	PDV-P9203
R17	3k3	R41	3k3	C7	1uF	C31	100uF	IC2	TL074		
R18	220k	R42	3k3	C8	1uF	C32	220n	Q1 - Q2	MPSA18	LED	1K Trim
R19	2M2	R43	1k	C9	1uF	C33	470n	Q3 - Q5	BC108C	PGAIN	2K Trim
R20	15k	R44	12k	C10	1uF	C34	47n	Q6 - Q8	BS170	* CLR x3	1k8 - 4k7
R21	4k7	R45	200k	C11	47uF	C35	100uF				
R22	100k	R46	10M	C12	47uF	C36	4u7	EFL1	Status LED	EF1	6PIN Ribbon
R23	47k	R47	3k3	C13	10uF	C37	4n7	EFL2	Status LED	EF2	6PIN Ribbon
R24	100R	R48	3k3	C14	10uF	C38	10n	EFL3	Status LED	EF3	6PIN Ribbon



Build Notes:

Included with the purchase of the main PCB board will be (3) standard foot switch wiring boards (6 pins), as well as (3) pieces of ribbon connector. This simplifies the wiring process while keeping troubleshooting to a minimum.

* **CLR x3** - Each wiring board requires an onboard (CLR) current limiting resistor. This is for the main board status LEDs. A value of 1k8 (Bright) to 4k7 (Dim) may be used.

Solder the wiring boards to your preferred 3PDT footswitch, attach one end of the ribbon cable to the wiring board, and then proceed to solder the three assembled footswitches to the main board. Utilize the top center pads for connecting power and the In/Out jacks.

Visit the Shop Page from where you acquired the PCB to access artwork files and find a link to order pre-drilled enclosures from Tayda.

LDR1 - 4 requires part PDV-P9203. Do not substitute. **D5** requires a Yellow or clear White LED. Capping the location is not necessary since it will be inside an enclosure. Mount the LDRs facing the LED. This is an easy procedure that only requires the correct components (see photo).



TIPS:

- **Q6 – Q8 require Mosfet BS170. Do not use any other type such as 2N7000.**
- **D1 – D3** are Zener Diodes 9.1v. I used 1N4739A for my build.
- **Rate Potentiometer** requires a **Dual GangB100K** potentiometer so it has two sets of lugs.
- **Q3 – Q5** are BC108C but can also be BC109C. I suggest the C variant for the higher gain.
- **LED** trimmer provides precise control over LED brightness. When selecting the LED, options include Yellow or Clear White. Feel free to experiment and customize it to your preference. Aim the LDRs at the LED with a slight gap, following the photo example on the previous page. A light cap is unnecessary as the main board will be installed in an enclosure.
- **D5 LFO** The LED can be yellow or clear white. It is not critical like the LDRs.
- Avoid changing the values of resistors, capacitors, or potentiometer tapers, as they play a crucial role in both the functionality and the creation of the desired feel. All values are readily available.

Usage Guide:

Gain Mapping: Effective gain mapping is vital for optimizing your combo pedal setup. Avoid the inclination to turn all knobs to 10, as this rapidly leads to unwanted noise and feedback. Instead, explore the intricacies of control mapping to unlock a diverse range of tones. Consider that each of the three circuits contributes a substantial level of Gain, and when used together, they combine. Follow the suggestions below to extract the utmost from your NostalgiTone DSOTM combo pedal.

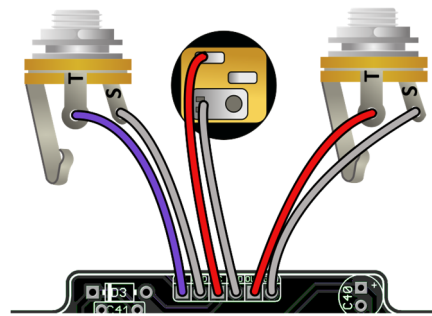
Example: The Vibe's dedicated Volume control, is louder than the bypass. However, maintaining headroom is crucial, especially with the abundance of gain and fuzz available to muddy the waters. Start by mapping the gain for the Fuzz, as it is the noisiest of the bunch. Set the Fuzz control to Noon or slightly lower, then adjust the Volume Control to just surpass unity gain when all other effects are bypassed. Next, bring in the Vibe effect and adjust its volume accordingly, with the Intensity around 1 o'clock. This approach should provide enough headroom for introducing the Vibe effect without it becoming lost in the noise.

1. **WattAmp:** Meticulously designed to emulate the distinctive sound of a renowned guitarist during his HiWatt era, this pedal encapsulates the power, grit, and nuanced responsiveness of the fully cranked vintage amplifier. To authentically recreate these tones, it is recommended to start with the Gain control set between 10:00 and 12:00, adjusting the Volume slightly higher. Lower Gain settings ensure smoother operation when paired with the Fuzz. Begin with the Tone controls centered at noon.
2. **Luna Fuzz:** For an optimal Fuzz experience, start with all controls set to noon. Adjust the Volume control to blend seamlessly with the WattAMP, embracing essential Gain mapping. Experiment with blending different amounts of Fuzz with WattAMP Gain for lead tones with plenty of sustain. Avoid maxing out the Fuzz control to prevent excessive noise, preserving an authentic Fuzz tone. Begin with the PGAIN trimmer at its midpoint, although you can adjust it higher or lower for a different Fuzz character. I recommend using BC108C or BC109C transistors for the Luna Fuzz, as the typical hFE found in the C variant offers optimal DSOTM performance.
3. **Phaser:** For the best DSOTM Phaser experience, start by centering all controls at noon. Adjust the Rate control as needed to achieve your desired tone. Set the Volume control to a reasonable level that complements the other circuits. Fine-tune the Intensity, starting from the classic noon position. The Voice control can add or subtract low-end tones, making noon an ideal starting point.
4. **Power Supply:** Always use a 9-volt power supply (nothing higher) with a 2.1mm plug and a negative tip.



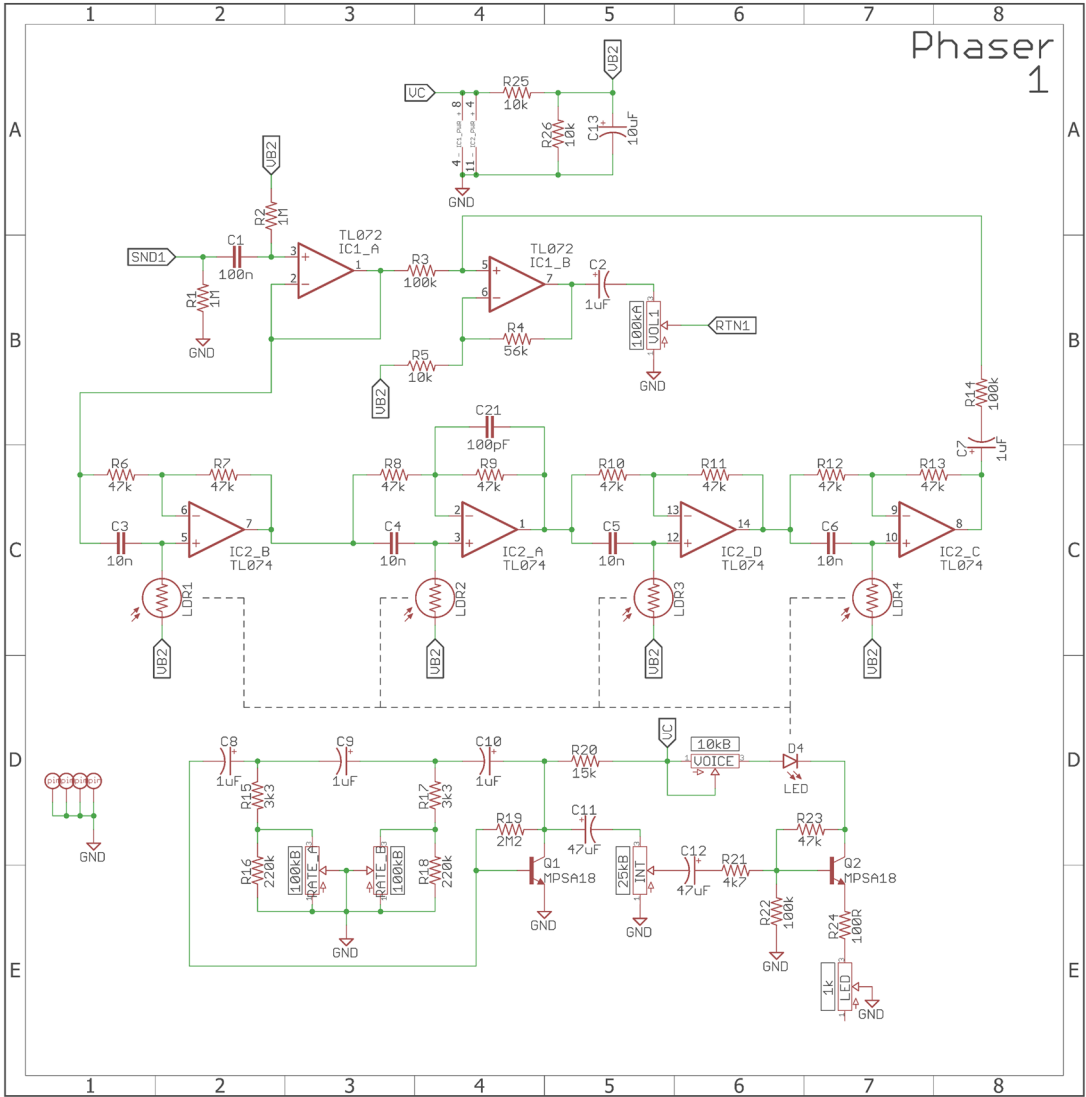
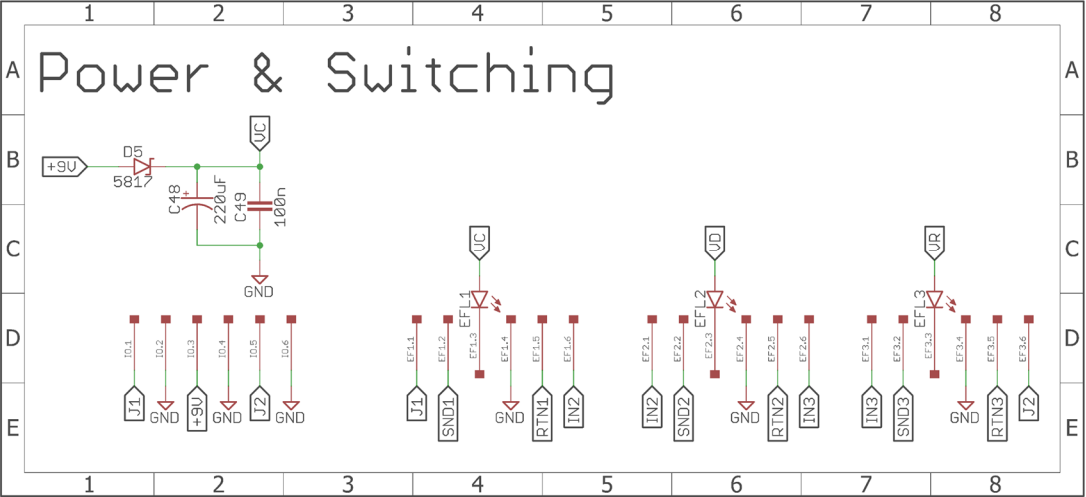
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A link for a Tayda Pre-drilled enclosure is on the Shop page at GuitarPCB.com

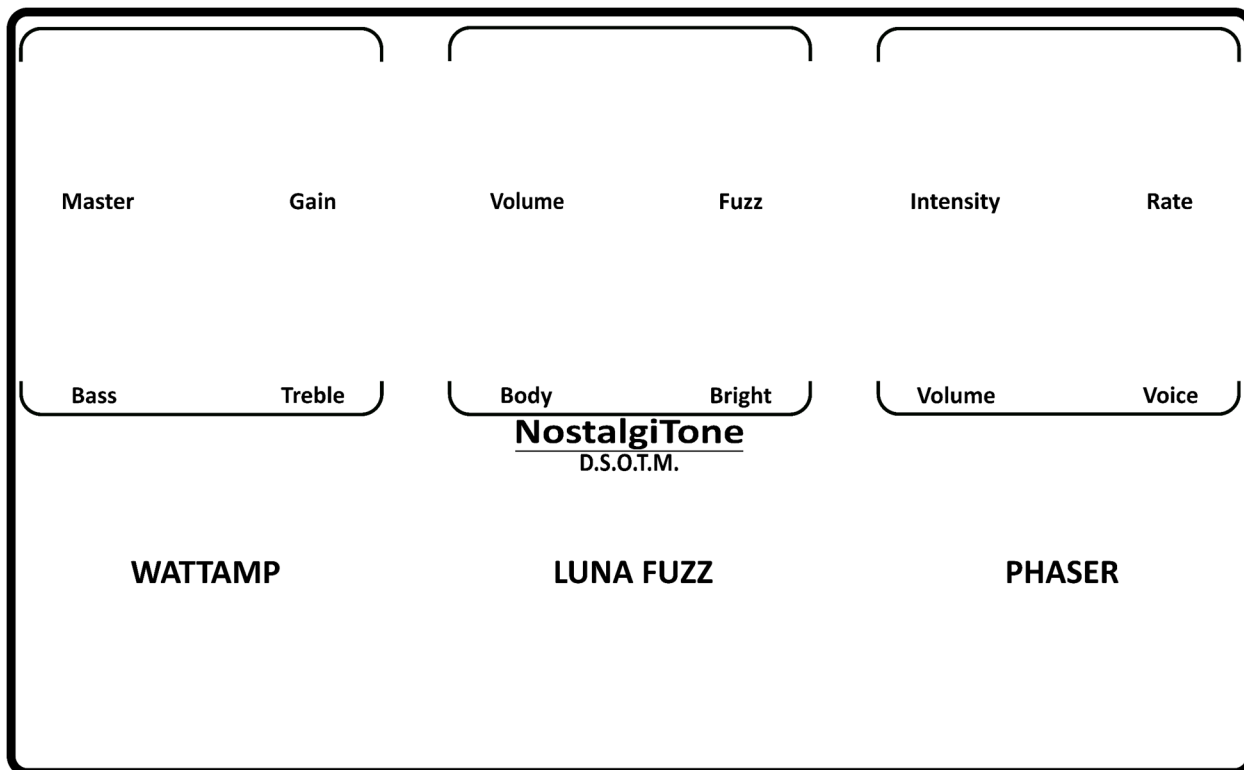


Easy Wiring Guide

Schematics:



Silkscreen Image: Obtain a High-Resolution version at the Shop Page where you purchased this PCB.



Example finished enclosure idea below.



