# **GuitarPCB Presents:**

# NostalgiTone - 60's Edition

Are you ready to elevate your game? The **NostalgiTone 60s Edition** combo is here to give you the ultimate sonic experience. We have combined the best of the best, squeezing three incredible circuits into a genre-defining combo. It features expert mods like Fuzz / Overdrive order-switching and a switchable 3-circuit tone enhancer.

- **Overdrive**: Step back in time to an era when iconic guitar tones ruled the stage. Representative of the tones used by Cream, Alvin Lee, Stones, and Jimi Hendrix, you too can capture that sweet, creamy crunch reminiscent of the legendary guitar sounds of the 1960s.
- **Fuzz**: Dive into the lush, velvety fuzz tones reminiscent of the legendary vintage Fuzz Face. Our design integrates attainable NPN silicon transistors to bolster stability, guaranteeing that you capture that iconic tone and enjoy unwavering performance. Plus, with the convenience of an onboard trimmer, you can fine-tune your fuzz experience, from smooth, flowing tones to edgier, more gated textures.
- **Tremolo**: The Tremolo is a vital addition to the 60's tone, infusing your guitar tone with captivating pulsing waves. But that is not everything. Thanks to the onboard toggle "kill" switch, you can deactivate the tremolo pulse while keeping the tone-enhancing portion of the circuit intact. This gives you the purest tone from all three circuits directly to your amplifier, granting you complete mastery over your sound, and resulting in impeccably crisp and crystal-clear notes. Additionally, using the Volume control in tandem with the foot switch you can Boost your solos or dial in a more compressed always-on tone.

Onboard Order Switcher: Want to switch up your sound? Our onboard order switcher lets you change the sequence between Overdrive and Fuzz, so you can create your unique sonic signature.

**Solution** 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.

X 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 **NostalgiTone** series combo builds from GuitarPCB. Get yours today and discover a world of sonic possibilities like never before!

	**
60s Edition	
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### Mainboard Dimensions - 6.90" x 2.40" – Perfectly sized for a 1590DD enclosure



Included with each PCB purchase. - (1) Mainboard, (3) wiring boards, and (3) ribbon cables.

#### R1 R2 BC183B R3 J113 / 2N5457 R4 2N5088 J113 / 2N5457 R5 2N5088 R6 R7 TL072 R8 R9 **3PDT Toggle** R10 **3PDT Toggle** R11 R12 R13 47k R30 120k C9 100n C26 100uF D5 1N5817 EFL1 Status LED R14 47k R31 68k C10 100n C27 220uF FFI 2 Status LED R15 2M2 R32 2M2 C11 100uF C28 100n EF1 6pin Ribbon EFL3 Status LED R16 39k R33 15k C12 4n7 BIAS1 5k Trimmer EF2 6pin Ribbon EFL4 Bicolor LED R17 120k R34 1k C13 1uF TP1 Bias Test Pad EF3 8pin Ribbon (Common Anode)

#### **Build Notes:**

Part

Included with the purchase of the main PCB board will be (2) standard foot switch wiring boards (6 pins), (1) Tremolo effect foot switch wiring board (8 pins), as well as (3) pieces of ribbon connector. This simplifies the wiring process while keeping troubleshooting to a minimum.

The two standard 6-pin foot switch wiring boards contain an onboard (CLR) current limiting resistor. This is to adjust the brightness of their corresponding main board status LEDs. The Tremolo status LED (CLR) is on the main board at R34. A 1k8 value will be brighter than 4k7.

Status LED mounting: EFL1 – EFL3 are the main Status LEDs. ELF4 is a Bi-color Common Anode LED to show Tremolo "Kill" status. Disengaging the Tremolo "LFO" by toggle switch instead of the 3PDT foot switch will leave the tone-enhancing buffer. All four LEDs are mounted from the backside of the board along with potentiometers, and toggle switches. Use 5mm LEDs if you order a predrilled 1590DD enclosure from Tayda.

\* D1 – D4: You may use 1N914, or 1N4148. If you want even more volume from the Overdrive (Bluesbreaker) circuit install a Blue LED in place of any of the silicon diodes. 1N4148, or 1N914 has a forward voltage of 0.72 while the Blue, or Violet LED has a 2.90 to 3.10 forward voltage.

BIAS1 is a 5k Trimmer. Extra pads are to accommodate several trimmer packages. Adjust till it sounds right for you. Choose between smooth or more gated tones. Use a DMM and test your voltage more accurately using TP1 (test pad + ground). Try for 4-5 volts.

Q3 and Q5 are JFETs. Use J113, 2N5457 CEN brand, or MPF102, and they must be genuine. Do not use J201. If the Tremolo has issues check Q3, and Q5 first. Q1 and Q2 transistors have a lower hFE perfect for this Fuzz, and a unique pinout. Note the pinout orientation per the PCB silkscreen.

# Schematics:





# **Wiring Diagrams**





Enclosure Art for finished pedal.

Other Art links are available on the GuitarPCB Shop page.



## SMD Pads:

NostalgiTone PCBs requiring JFETs also have a pad for SMD components usage. This enables you to future-proof your builds and ensures the authenticity of components. Utilizing solder paste makes handling SMD components feasible. NostalgiTone 60's as well as the Tremolo "Single" require use of an authentic 2N5457, J113, or MPF102 for comprehensive Depth control. J201 is not a suitable substitute due to its distinct characteristics. J113 is more easily procurable from trustworthy sources. The SMD equivalents for 2N5457 and J113 are MMBF5457 and MMBFJ113, respectively.

see Q5 pads in the image below (SMD will lay nicely on the top 3 pads which include the square pad = Gate)



### Usage tips (Things to consider):

- 1. Efficient Gain Mapping: Achieving the best results with your combo pedal setup involves mastering the art of gain mapping. Avoid maxing out all knobs at 10 to prevent unwanted noise and feedback. Instead, explore the spectrum of tones, from clean power to intense fuzz, through strategic control mapping.
- OD Section Bluesbreaker Amp Inspired: The OD section draws inspiration from the real Bluesbreaker amp. Begin by setting the main Volume to full and fine-tuning the Drive for your desired clean power to crunchy "Beano" tones. If you desire the full amount of available crunch then reduce the Main volume slightly for full crunch. If you want even more volume, try the LED/diode mod Page 2.
- 3. Gain Mapping with Tremolo's Boost/Enhance Feature: Combine the gain mapping technique with the Tremolo's boost/enhance function for even more added clean volume. Simply utilize the "kill switch" on the Tremolo, activate the foot switch, and adjust the Tremolo Volume to achieve your preferred boost/enhancement level. Depending on the loudness, adjust the OD volume accordingly.
- 4. **Fuzz Voltage Adjustment:** While this is subjective, I prefer the Fuzz voltage set to about 8.3v; however, feel free to customize it to your preference. Lower the voltage using the trimmer, DMM, and test pad for a more gated fuzz, or raise it to 9v for a smoother effect. Place the DMM red probe on the test pad and the other on the ground.
- 5. Power Supply: Always use a standard 9-volt (nothing higher), and 2.1mm power supply with a negative tip.
- 6. Tandem Usage of Fuzz: Experiment using the Fuzz in tandem, considering the importance of "Gain Mapping" for a well-balanced and dynamic sound.

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