GuitarPCB presents
Voodoo Redux

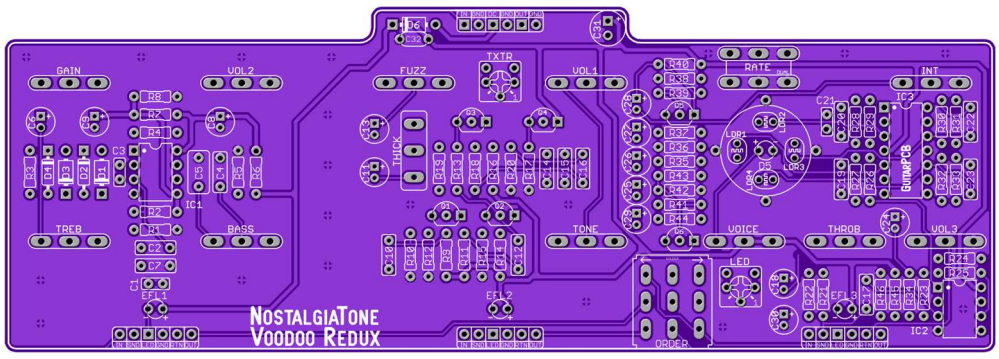
Welcome to the first in our NostalgiTone Artist series. The **Voodoo Redux** is here to give you the ultimate sonic experience. We have combined the best, squeezing three incredible circuits into an artist-defining combo.

- **Plexamp**: Immerse yourself in the NostalgiTone foundation amp tone with Plexamp—meticulously crafted to recreate the iconic 1962 Marshall JTM 45 sound. Whether you are chasing the timeless tones of Hendrix or Trower, Plexamp's versatile Gain range and robust Bass and Treble shaping controls provide all the sonic tools you need. Hendrix and Trower's unique tones extend beyond fuzz, and Plexamp skillfully reproduces those amplified tones with versatile overdrive variations. For optimal results, it is advised to use either Plexamp or Gypsy Fuzz individually.
- **Gypsy Fuzz**: Enter the realm of the Band of Gypsies era with the Gypsy Fuzz. It is uniquely crafted with precision and equipped with multiple stages of silicon transistors for unmatched stability. Additionally, a “thick switch” is integrated to broaden the spectrum of available tones. Drawing inspiration from the final recordings, this fuzz circuit produces a soaring fuzz tone that effortlessly cleans up with the guitar's volume control. Immerse yourself in the musical magic of that mysterious era with the Gypsy Fuzz.
- **Vibe**: Experience the lush, syrupy tones reminiscent of the original Uni-vibe circuits with The Vibe. Boasting five controls – Intensity, Rate, Volume, Throb, and Voice – this circuit allows for precise sound customization. Finding your ideal tone is effortless. Our version is distinct with an Order switch, offering the flexibility to place The Vibe before or after the Gypsy Fuzz, creating a diverse palette of tones.

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



Part	Value
R1	1M
R2	470k
R3	4k7
R4	820R
R5	4M7 - 5M1
R6	10R
R7	470k
R8	470k
R9	150k
R10	22k
R11	10k
R12	1k
R13	47k
R14	10k
R15	100R
R16	10k
R17	10k
R18	10k
R19	10k

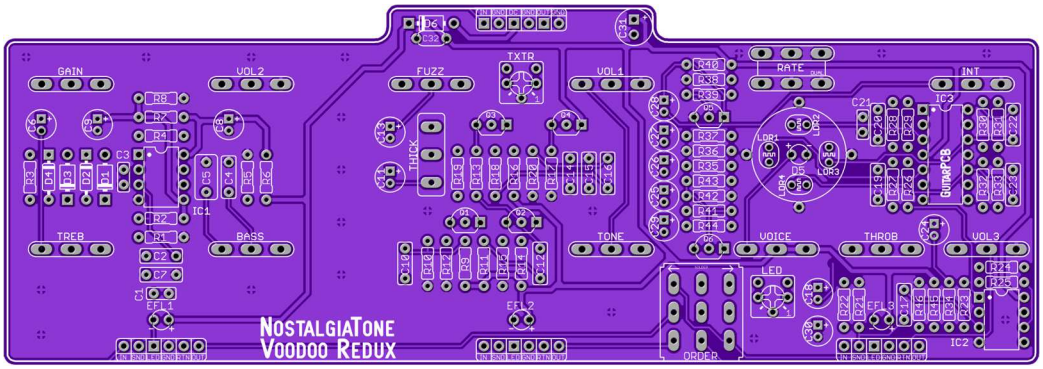
Part	Value
R20	2k2
R21	1M
R22	1M
R23	100k
R24	56k
R25	10k
R26	47k
R27	47k
R28	22k
R29	47k
R30	47k
R31	47k
R32	47k
R33	47k
R34	100k
R35	3k3
R36	220k
R37	3k3
R38	220k

Part	Value
R39	2M2
R40	15k
R41	4k7
R42	100k
R43	47k
R44	100R
R45	10k
R46	10k
C1	220pF
C2	150n
C3	47pF
C4	100n
C5	470n
C6	4u7
C7	47n
C8	47uF
C9	47uF
C10	10n

Part	Value
C11	10uF
C12	100n
C13	47uF
C14	100n
C15	8n2
C16	100n
C17	100n
C18	1uF
C19	15n
C20	220n
C21	100pF
C22	4n7
C23	470pF
C24	1uF
C25	1uF
C26	1uF
C27	1uF
C28	47uF
C29	47uF

Part	Value
C30	10uF
C31	220uF
C32	100n
Q1 - Q4	2N3904
Q5 - Q6	MPSA18
D1	1N4001
D2	1N914
D3	1N4001
D4	1N914
D5	Yellow (vibe)
D6	1N5817
IC1	JRC4558
IC2	TL072
IC3	TL074
* CLR x3	1k8 - 4k7
EFL1 - EFL3	Status Led

Part	Value
THICK	SPDT On/On
ORDER	3PDT On/On
LDR1 - LDR4	P-9203
LED	1k Trimpot
VOL1	A100K
TONE	B50K
FUZZ	B1K
TXTR	2K Trim
VOL2	B100K
GAIN	A500K
TREB	B10K
BASS	C20K
VOL3	A100K
RATE	B100K Dual
VOICE	B10K
INT	B25K
THROB	B25K



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).

Rate requires a **B100K** potentiometer which is **dual gang** so it has two sets of lugs.

Q1 – Q4 requires lower gain silicon transistors. 2N3904 or 2N2222 work equally well and have the same orientation as the silkscreen.

R5 – This may be a value ranging between 4M7 and 5M1.

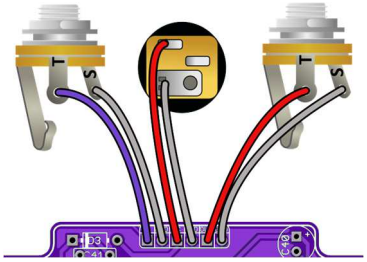
TIPS:

- Remove the plastic backs from the three potentiometers lined up in a row. Then, use non-conductive material to keep them from touching the solder side. This ensures easier fitting into the enclosure drill holes. Protect only the backs of the pots, not the sides. Small pedal bumpers would suffice, or consider using some 3M cushioned stickies, etc.
- The LED trimmer provides precise control over the LFO LED brightness. Aim the LDRs at the LED with a slight gap, following the photo example. A light cap is unnecessary as the main board will be installed in an enclosure.
- D1 – D4 of the Plexamp can undergo customization. While I recommend the stock configuration, you have the option to experiment by replacing the 1N4001s at D1 and D3 with LEDs of your preferred color. Keep in mind that varying LED colors possess different forward voltages, impacting the overall tone.
- 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.
- Enclosure Installation: Ensure every single nut and washer is removed from all pots, 3PDTs, and switches. Remove all metal tabs on pots. Use a Hobby Pick Tool for moving things around in those tight spots. Loosely fit LEDs, bending only the ends of the leads to prevent them from slipping through the pads. Finally, solder LEDs after proper fitting.

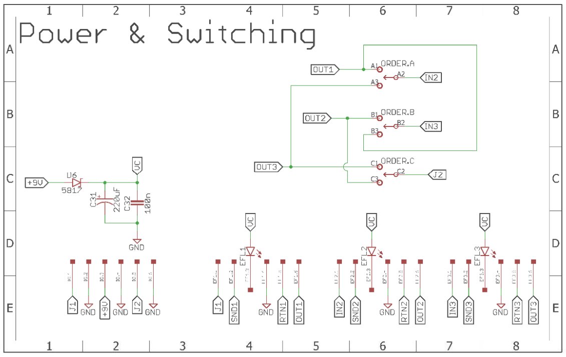
Usage Guide:

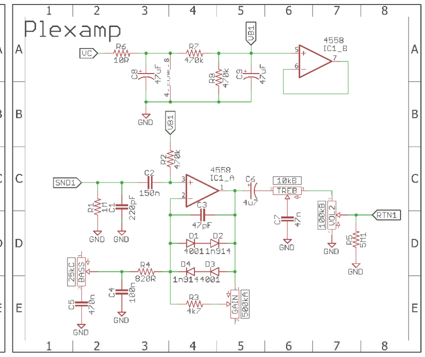
Gain Mapping: Perfecting effective gain mapping is vital for optimizing your combo pedal setup. Avoid the inclination to turn all knobs to 10, as this rapidly leads to unwanted noise and feedback. Instead, explore the intricacies of control mapping to unlock a diverse range of tones. Consider that each 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 Voodoo Redux combo pedal.

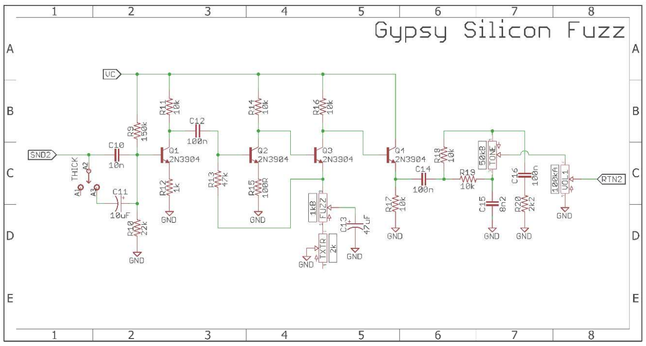
1. **Plexamp:** Derived from the JTM45, the Plexamp circuit offers a Medium Gain overdrive when you increase the Gain control. Hendrix and Trower's unique tones extend beyond just fuzz, and Plexamp skillfully reproduces those amplified tones with versatile overdrive variations. For optimal results, it is advised to use either Plexamp or Gypsy Fuzz individually. To replicate Jimi Hendrix's tones effectively, it is suggested to begin with the Gain control between 10:00 and 12:00, consequently setting the Volume a bit higher. Lower Gain settings facilitate smoother operation alongside the Vibe. Start with the Tone controls centered at noon.
2. **Gypsy Fuzz:** For an optimal Gypsy Fuzz experience, begin with all controls set to noon and the Order Switch Toggle pointing at the Vibe. Adjust the Volume control to blend seamlessly with the Vibe, embracing essential Gain mapping. Refrain from maxing out the Fuzz control to avoid unwanted noise, preserving the authentic Hendrix Fuzz tone. Start with the TXTR trimmer at its midpoint. With the Fuzz control centered it enables your guitar to clean up effectively, delivering a range of exceptional tones. If you desire more available Fuzz tones you may try a higher gain transistor in the last two stages such as 2N5088.
3. **Vibe:** For an optimal Vibe circuit experience, begin with all controls centered at noon. Set the Volume control at a reasonable level to complement the other circuits. Adjust the Rate control to your preference, with slower Rates capturing the essence of Hendrix and Trower tones. Fine-tune the Intensity, starting at the classic noon position. The Voice control adds or subtracts low-end tones, making noon an ideal starting point. Lastly, the Throb control, though very subtle on a bridge pickup, imparts a low-end pulse, more noticeable with the neck pickup engaged. Explore these settings to craft your perfect Vibe tone.
4. **Order switching:** We have introduced order switching to generate two distinct Vibe tones when using the Fuzz and Vibe simultaneously. The conventional Hendrix tone is achieved when the toggle is pointed at the Vibe, signifying that the Vibe comes first. If the toggle is directed at the Fuzz, a more pronounced Vibe tone will be evident.
5. **Power Supply:** Always use a 9-volt power supply (nothing higher) with a 2.1mm plug and a negative tip.

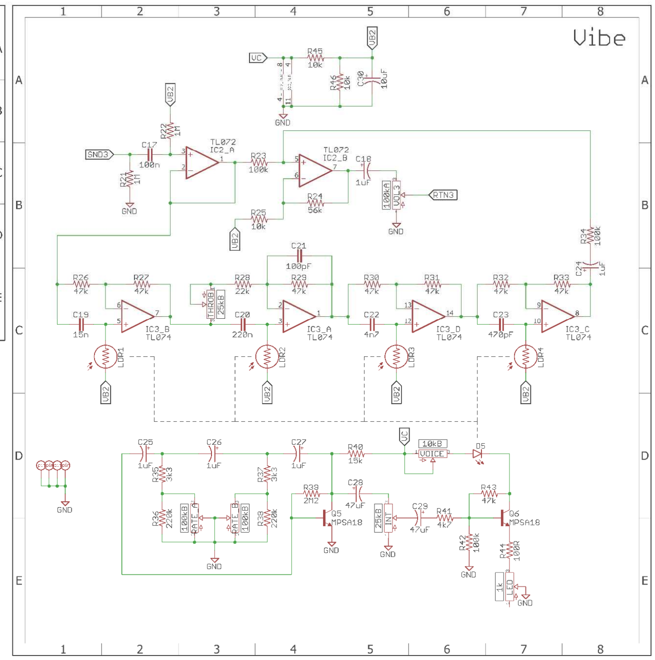


Easy Wiring Guide

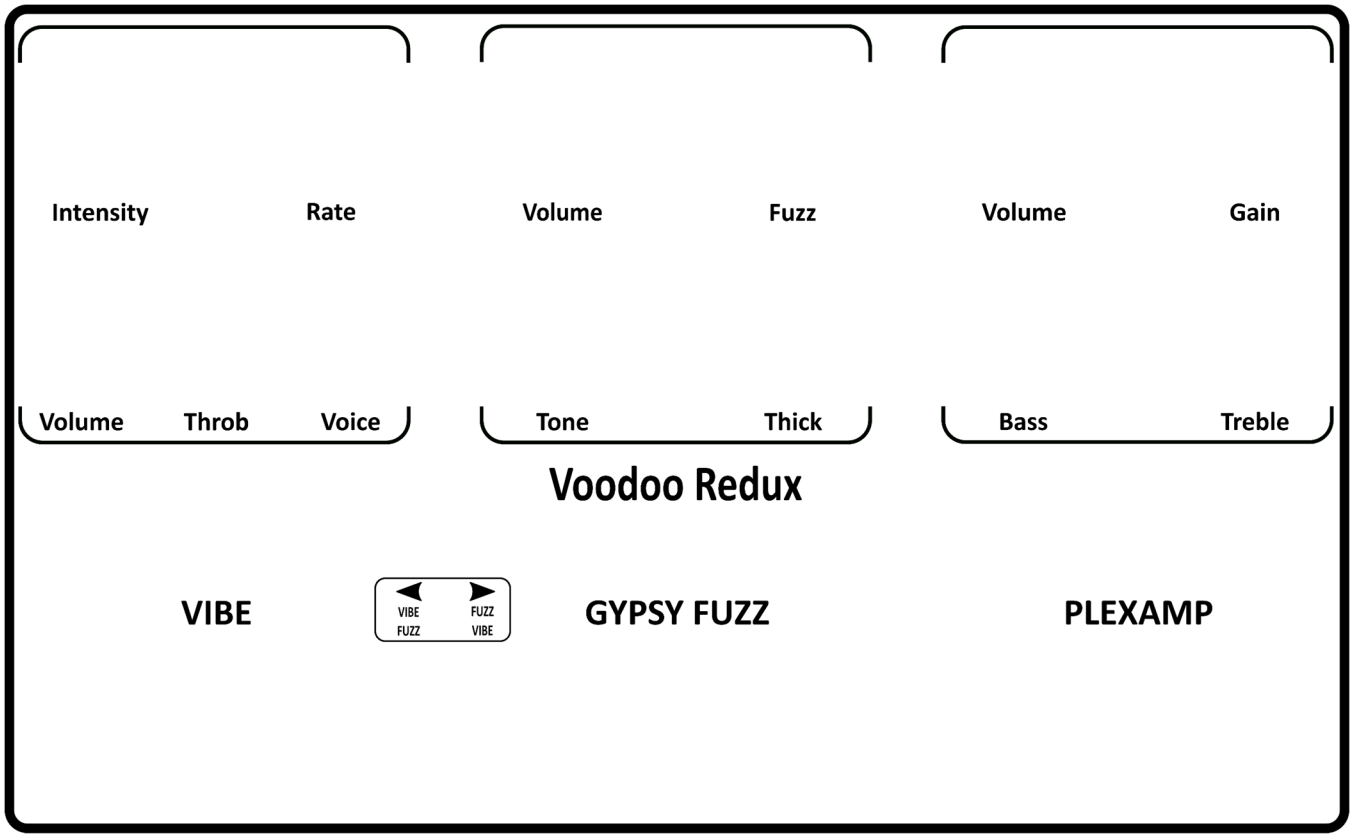

Power & Switching


Plexamp

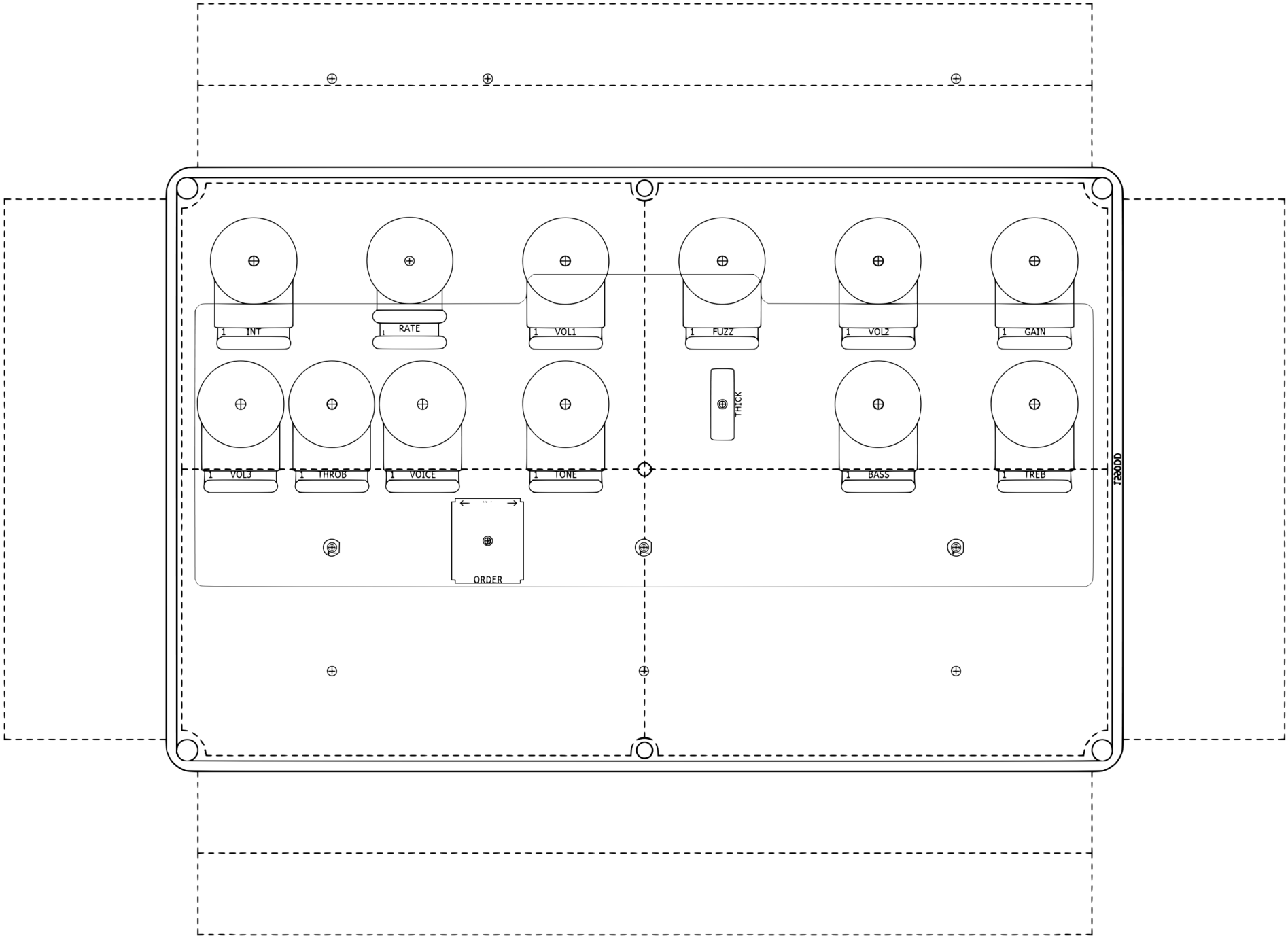

Gypsy Silicon Fuzz


Vibe

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



Drill Template Printing Tip:
The drill template on the last page is designed to scale and may extend into the page margins. For best results, set your PDF viewer or printer settings to “Actual Size” or “100%” (not “Fit to Page”) before printing. If needed, adjust your printer’s margin settings or use “Borderless” printing to ensure accurate sizing before drilling your enclosure.


INT
RATE
VOL1
FUZZ
VOL2
GAIN
VOL3
THROB
VOICE
TONE
THICK
BASS
TREB
ORDER