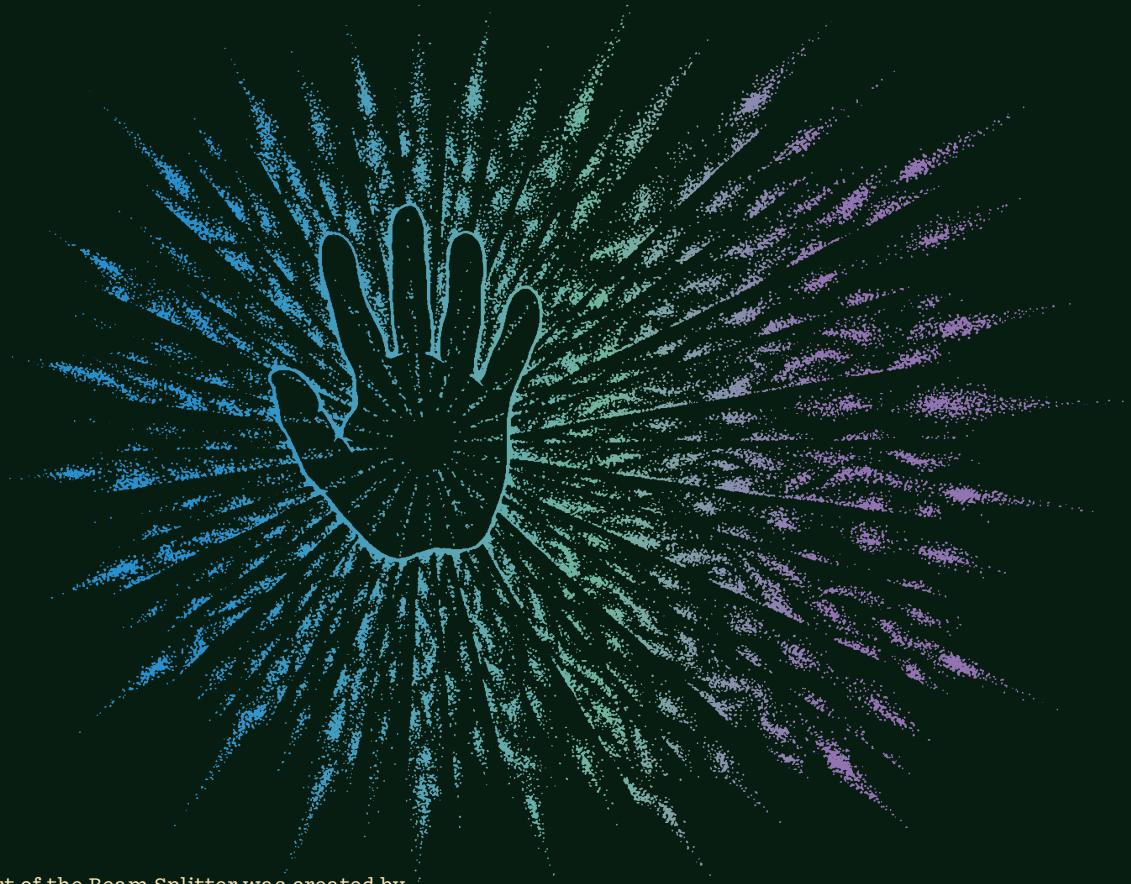

The art of the Beam Splitter was created by Dustin Charles Cleveland. Dustin is the founder and owner of Ritual Electric Tattoo Studio in Tulsa, OK. Engage with his art on IG: @dustincharles and @ritualelectric

What is the size of sound?

We're not trying to be philosophical here. Like, literally, what is a big sound? To be washed in sound, does it have to be one big sound, or will a number of small sounds do the trick? To create a wall of sound, same question, but also how does it stay solid, we mean to say how can sound waves make a wall, and is it just a moment in time; will it always crash down? While we're at it, what's the difference between sound waves and light waves? Probably something sciency, which is beyond our purview here, and we're getting ahead of ourselves anyway. We suppose what we're saying is:

BEAM SPLITTER

is a single pedal meant to create a massive sound. It is three different takes on overdrive, voiced to work well together. Two of them can be delayed in time, and all three can be run in parallel or split out to three separate sources. Beam Splitter takes a mono input and makes it wildly bigger than before. Things stretch in time and compress in dynamics, and a rich harmonic wash is achieved without sacrificing clarity. Why record your guitar thrice when Beam Splitter exists?

Requires 150 mA of 9v DC center negative power. We recommend using an isolated power supply.

Beam Splitter is best seen in three sections: **PURPLE**, **GREEN**, and **BLUE**. We'll talk about those first, then address the elements that bring them together.

PURPLE is a hard-clipping distortion that can be seen as the core gain sound of Beam Splitter. Of the three gains, it is arguably the heaviest and most compressed. It has three controls, identified by their purple knobs and labels:
Gain sets the amount of distortion. As it's turned up, it also affects the voicing of the distortion, rounding off low end and increasing distortion in the mids and highs.
Volume sets the overall output volume.
Tone rolls off the high end as it is turned down. All the way down is a darker distortion, all the way up is full brightness.

GREEN is an overdrive with both soft and hard clipping. Of the three gains, it is the lightest and brightest. It has five controls, identified by their green knobs and labels:
Gain sets the amount of overdrive. All the way down, it is almost a clean boost, and all the way up it is a medium overdrive with accentuation of the mids and highs.
Volume sets the overall output volume.
Tone rolls off the high end as it is turned down. All the way down is a darker drive, all the way up is full brightness.
Time sets the delay time, up to 125 milliseconds. When blended in parallel with the other drives, this delay time can create anything from tight comb filters to loose doubling delays to short slapback. (See note on **Deviate** and how it affects timing.)
Decay sets the feedback of the delay, from one repeat up to many repeats trailing off. In comb filter settings, this can increase resonance.

BLUE is a transistor overdrive. Of the three gains, it is the most neutral and reactive, with a gain range somewhere in the middle. It has five controls, identified by their blue knobs and labels:
Gain sets the amount of breakup. In the down setting, it is less overdriven, with less compression in the mids and highs. In the up setting, it is more overdriven and aggressive.
Volume sets the overall output volume.
Tone rolls off the high end as it is turned down. All the way down is a darker drive, all the way up is full brightness.
Time sets the delay time, up to 125 milliseconds. When blended in parallel with the other drives, this delay time can create anything from tight comb filters to loose doubling delays to short slapback. (See note on **Deviate** and how it affects timing.)
Decay sets the feedback of the delay, from one repeat up to many repeats trailing off. In comb filter settings, this can increase resonance.

There is one shared knob: **DEVIATE. Deviate** sets the amount of random variation in the delay time of **Blue** and **Green**. The more it is turned up, the farther their delay times can deviate, and the faster those deviations happen. When **Deviate** is at zero, the delay times are fixed. Above zero, each **Time** knob sets that section's maximum delay time, and the amount of Deviation will shorten that delay time. The intent of **Deviate** is to create a more realistic sense of doubled players, with random variations in timing as if you were playing to the track twice. It can also give the impression of flanging, chorusing, or broken vibrato, depending on your settings.

The **Expression** jack is used to externally control **Deviate.** Simply plug in a TRS expression device (standard polarity, tip connected to wiper) to take over control of the Deviate knob.

Beam Splitter has a mono input via its Input jack. From there, the signal goes out to **Purple**, **Green**, and **Blue** in parallel. If only plugged into the **Purple** Out jack, all three sections will join in parallel mono at that Output. **Green** and **Blue** can each be broken off into their own output by plugging into the **Green** and **Blue** Out jacks. In this way, you can have a full trereo setup! (We're being told trereo is not a word, but I think you and we both know it is.)