# description

Tremdriver is a high headroom preamp that makes any rig sound bigger and better combined with a foot-switchable harmonic tremolo that gives you amazingly lush and swirly pulses.

- Tremdriver incorporates three EP-3 style 24-volt JFET preamps in a series/parallel configuration being modulated by the discrete oscillator from the Univibe to create the ultimate EP-3 based preamp and harmonic tremolo.
- Designed to run towards the end of your pedal chain. The JFET preamp can boost or attenuate your entire pedalboard for complete control over your volume level and how hard you're hitting your amp without compromising the settings of your other pedals. Think of Tremdriver as your master fader plug-in that makes your mix, or in this case, your pedalboard, instantly bigger with a wider soundstage.
- Switch on the LFO to give your instrument the magical harmonic tremolo pulse as your sound see-saws between fine-tuned overlapping bass and treble bands.
- Utilizes all-discrete, through-hole components specifically selected to achieve the desired sound + response. Carbon composition resistors for their subtle warm harmonics. Premium orange drop and axial capacitors for their creamy punch and wide sound stage. Tremdriver features specially selected and matched JFETs.
- Housed in kittycasterFX's exclusive wedge enclosure.

# sound+response

Designed & handbuilt in Portland, Oregon USA
Sonic concept/circuit, PCB, & enclosure design - Howard Gee
Visual concept/art direction & design - WB72
Handbuilt by - Steve Hamari & Jean Mastaler
Global sales & business management - Scott Miller
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# CIC CILL the story

I've been fascinated by the "harmonic vibrato" (or "brown panel tremolo") sound since the first time I heard it - it was such a lush and swirly sound! The concept is super simple - take the signal and split it into high and low frequency bands and then pan back and forth between them. The result can end up sounding like a magical cross between tremolo, vibrato, phasing, and univibe. I wanted to come up with my own take on the idea with a particular emphasis on making the audio path big, warm, and wide with lots of headroom.

With that vision in mind, I got out a new breadboard and started experimenting with different circuit blocks and oscillators. I kept at it until I found a combination of elements that sounded magical. In some ways, what I arrived at seems obvious in hindsight. But I've noticed that it isn't always obvious how to get to a solution that seems like it couldn't have been done any other way. It's kind of like when you hear a great guitar riff and wonder to yourself, "man, what a great riff but it's so simple to play! How come I didn't come up with it?!"

So what did I end up with? Imagine a cross between a brown panel Fender amp trem, a Univibe, and an EP-3 Echoplex because that's exactly what I did! I took those building blocks, came up with the circuitry to stitch them all together, and then spent a year tuning and refining the circuit until I was happy with it.

I'm pretty stoked about this circuit. It's a completely fresh take on a classic idea. I guess that's what I do!

Rock on, sisters! Play on, brothers!

Howard



### directions

Tremdriver is not two separate pedals in one unit; it is a three-stage preamp with two of the stages running in parallel. When the LFO function is engaged it is like turning the gain up and down alternating between the two stages to create the magical pulsing effect.

Place Tremdriver somewhere towards the end of your pedal chain. Reverb, delay, and output buffer type pedals make sense to go after Tremdriver. Most boost, drive, distortion, fuzz, filter, EQ, modulation, and wah pedals work best in front.

There are no absolute rules though so take this as a guideline and then spend time experimenting to hear what works best for you. But do keep in mind that with its 24 volts of headroom it's usually best to put lower voltage pedals in front.

A good starting point to explore the preamp function is to set both DRIVE and OUTPUT controls at noon, SPEED to taste, and LFO BIAS somewhere in the zone indicated on the dial legend.

Do you want to boost your amp up with a punchy and thick boost? Turn up the DRIVE and balance the output.

Do you want to run your pedalboard with your stage settings but be able to do some low volume practice without having to adjust either your amp or other pedals? Turn the DRIVE control way down and then set the OUTPUT to a low setting.

Otherwise, Tremdriver is pretty intuitive so just experiment and find your own sounds and applications for it!

Mounting the Tremdriver to your pedalboard:

All kcFX pedals come with four rubber feet that screw into the pedal and can be removed simply by turning them with your fingers. If you wish to velcro your pedal to your pedalboard, simply replace the four rubber feet with the included counter-sunk screws to get a perfectly flat bottom surface for secure velcro-ing.



for demo videos and more info go to www.kittycasterfx.com/products/tremdriver

### controls

DRIVE sets how hard the second JFET preamp stages are driven. Turn it down to relax the gain and pull the soundstage back. Turn it up to push your sound to the foreground. Crank it up for a bit of hair-around-the-edges breakup when playing with higher output



pickups.

**SPEED** sets the rate of the LFO for the harmonic tremolo sound. It has a wide range from slow pulses all the way to quivering tremolo.



**OUTPUT** should be adjusted after you set the DRIVE control to balance the output driving your amp.



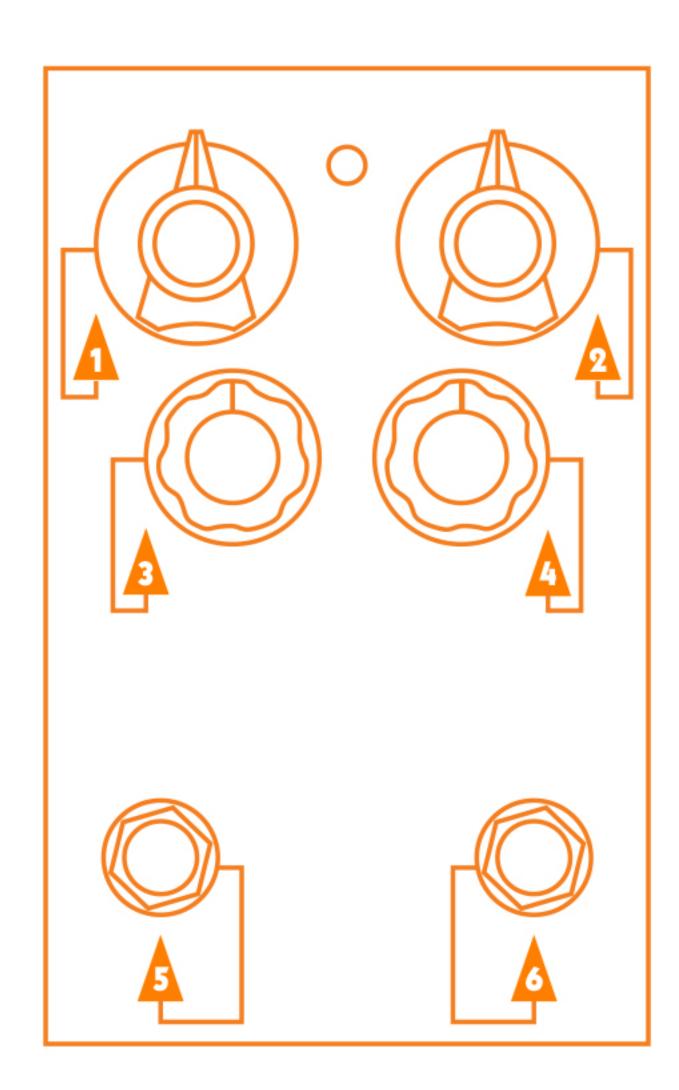
LFO BIAS adjusts the waveform of the LFO. Tremdriver works by splitting your signal into high and low frequencies and panning back and forth between them. The higher the LFO BIAS is set the steeper the notches are. For the thickest swirl set the LFO BIAS within the lower range of the control as indicated by the dark area on the dial. This will dial in more overlap between the high and low frequencies giving you almost Univibe-like pulses.



**BYPASS FOOTSWITCH** toggles pedal on/bypass. BYPASS is true mechanical bypass.



LFO FOOTSWITCH toggles the LFO on/off. When the LFO is off the LED stops pulsing and Tremdriver is now in preamp mode. When the LFO is on the LED pulses and the tremolo sound can be adjusted by the SPEED and LFO BIAS controls. Setting LFO BIAS to minimum results in no LFO pulses. For my favorite response, turn it down to minimum and then while playing a chord, turn it up until it just starts to modulate. This will help you find the thickest pulse!



## sample settings



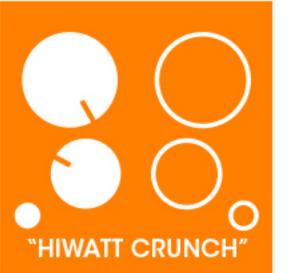












"PUNCHY BOOST"

#### power

Tremdriver is powered by a standard 9-volt DC power supply. Do not attempt to plug in any power source greater than 9.6 volts.

Internally that 9 volts is boosted up to a zener-regulated 24 volts with the power supply filtering specifically voiced for the best playing response with a lot of headroom.

Tremdriver does not run on batteries.

# specifications

Input impedance
Output impedance
Bypass
Current draw
Power supply

1 mΩ
10 kΩ
true-bypass, grounded input
70mA
9 volts DC (standard center-ground
5.5mm x 2.1mm barrel)

