

# Hello and thank you very much! We hope you enjoy your Dr. Scientist Frazz Dazzler!

**POWER:** Your Frazz needs 9VDC and at least 75mA of current. Use a nice power supply that's specifically designed for guitar pedals, it should be regulated and filtered. Using a random power supply can cause noise problems like hum and possibly over-voltage which can damage your pedal. The Frazz's power jack uses the industry standard 2.1mm centre negative plug. Push it in until it clicks. And don't go higher than 9VDC, the Frazz is only biased for 9VDC and won't work right at higher voltage. (There isn't a battery inside the Frazz)

**INPUT/OUTPUT:** These are the jacks located on the top panel of the Frazz, the arrow pointing into the pedal is Input and the arrow pointing away from the pedal is Output.

**EXPRESSION:** This is the jack on the side of the Frazz. The expression jack takes over for the MIX knob and lets you do clean fuzz swells, blending smoothly from a clean tone to a fuzz tone, with your foot. It's expecting to see a TRS plug, the kind with 2 bands on the end, and it needs a passive resistance to work normally, anything in the range of 10k to 100k will work fine. Don't send in a voltage, that will disable the circuit, and don't send in a grounded connection (like a volume pedal), that will also disable the circuit. The Moog EP series and the Roland EV series are good places to start for expression pedals.

**STOMPS:** The stomp on the right turns the Frazz on and off, it's true bypass using a relay. The stomp on the left is your gain mode selector. It uses a relay too and the micro controlling them remembers their last state so when you power up your pedal board your Frazz will be just like you left it.

**GAIN MODES:** Both Frazz gain modes are pretty high gain and the gain knob will light up when you're in extra high gain mode. This mode includes a ton of extra saturation and a gate. As you turn up the gain knob the gate is decreased, so keep the gain knob low for really gated blippy sounds. When you're first getting used to your Frazz you should keep your guitar's volume up all the way until you get a handle on how the gate reacts to your pickups and style etc.

**GAIN KNOB:** For both modes the gain knob controls how much saturation/fuzz there is. The lower gain mode will clean up nicely with your guitar's volume knob. In extra high gain mode the gain knob acts more like a gate control with the signal always being super saturated.

**VOLUME KNOB:** This works only on the fuzz signal, not the clean/dry signal. Your clean/dry signal is buffered and otherwise left alone. The Vol knob is lit up when the Frazz is turned on.

**\*\*IMPORTANT NOTE\*\*** It's normal to hear some crackle noises if you quickly turn the gain and volume knobs. This is due to the plastic shaft potentiometers being un-grounded and more prone to static noise. It goes away instantly and won't hurt anything.

**EQ KNOBS:** The Frazz has an active 3 band peaking equalizer, 'active' meaning that each control can boost or cut the frequency and 'peaking' meaning that they boost or cut at a specific frequency. The bass control is around 100Hz, the mids around 800Hz, and the treble around 3000Hz.

**MIX KNOB:** This is a clean blend that lets you mix whatever you're sending into the Frazz with the Frazz, it blends the input with the output. You can use it to mix in some clean tone with your fuzz, say from a bass guitar or synth or whatever. Or you can use it to blend a different drive tone with your Frazz fuzz. If you just want pure Frazz fuzz leave the mix knob all the way up.

**VOLTS KNOB:** This is a voltage starve control to give different textures to the Frazz fuzz. Keep it all the way up for maximum headroom. As you turn the Volts knob down you lower the headroom of the fuzz signal, which adds saturation. At the bottom of the knob's control is a special range where the fuzz signal's headroom has been lowered so much there's almost nothing left. This makes for really bassy and pitchy and glitchy sounds that you can tweak with your guitar's volume knob for cool bass synth tones. You have to experiment a bit with this minimum setting as it's different for different guitars, so there's a little trim-pot in the middle of the pcb that you can adjust to set the perfect minimum for your system and playing style. Just twiddle it with a small flat-head or cross screwdriver while the volts knob is turned all the way down and you can set where the signal turns on and off. If it's set too low the Volts knob can silence the pedal, it's a fine line between off and on where the cool sounds live.

**THANK YOU:** Thank you very much, we really appreciate it! ([www.drscientist.ca](http://www.drscientist.ca) for more Dr. Sci pedal info!)

**GO HAVE FUN:** That covers everything! Go crush some power chords and palm mutes! If you have any questions about your Frazz shoot me an email, [ryan@drscientist.ca](mailto:ryan@drscientist.ca). Your Frazz comes with a limited lifetime warranty so if you ever have any problems just email and we'll make a plan! ([instagram.com/drscientistsounds](https://www.instagram.com/drscientistsounds) for more Dr. Sci pics and vids!)