

Chua's Diode Guitar Pedal

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The circuit shown below makes use of a non-linear op-amp circuit known as Chua's Diode. The op-amps and resistor that comprise U1 and the surrounding resistor are Chua's Diode. The op-amp U2B is a transimpedance amplifier that converts the current of the diode into a voltage while keeping voltage at the bottom of the diode at 0V. The op-amps in U3 are used to create the voltage rails for Chua's diode which can be adjusted from ~5V to 9V by turning the pot RV2. Finally, U2A and its associated resistor and pot and increase or decrease the gain going into Chua's Diode.

