

GREEN ZAPPER

AUTO FILTER

The Green Zapper is an attack sensitive auto EQ filter stomp-box for electric guitar.

OPERATION

The Green Zapper is a warm and musical auto filter pedal that will add movement and dynamics to your sound. The pedal uses a band-pass filter that sweeps through a frequency range as you play. The initial attack of your playing pushes the filter up into high frequencies, and then it sweeps back down to low frequencies as the notes decay. The harder you play, the higher the frequencies go before coming back down. The effect is like a wah-wah pedal that tracks your playing dynamics.

The Green Zapper is housed in a tiny 2"x2" enclosure that's sure to squeeze onto any pedal board. Step on the footswitch to turn the pedal on and off. The LED lights up to indicate that the circuit is active. The powered circuit is completely removed (true bypass) from your signal chain when the pedal is off.

Two internal trimmers adjust the range and sensitivity of the effect. These have been factory set for optimum performance with typical passive single coil pickups. Humbuckers and some bass pickups will require a lower sensitivity setting to avoid fizziness at the top end of the sweep. As you look down at the back of the pedal with the back cover off and the footswitch at the bottom, there will be one trimmer in the top middle portion of the circuit board and another in the lower right corner. The top middle trimmer sets the width of the frequency range that the circuit sweeps. The bottom right trimmer sets the sensitivity to your playing dynamics.

Some pedals have larger trimmers, and others have smaller trimmers (plus pattern on the screw) installed. With the larger trimmers, clockwise widens the range and decreases sensitivity. The action is opposite with the smaller trimmers. The best method is to use your ears as you sweep through the trimmer ranges. The sensitivity control is very reactive in the upper 20% of its high-sensitivity region, so small adjustments go a long way in that range. Be delicate!

SPECIFICATIONS

Configuration: As you look down at the front of the Green Zapper, the LED is near the top, and the on/off footswitch is near the bottom. The input jack is on the right side, the output jack is on the left side, and the power jack is on the left side.

Power: You can only power the Green Zapper with an external power supply (9 VDC) with the commonly used center-negative barrel connector. The maximum current draw is 10mA.

Circuit: The Green Zapper circuit uses a TL082 dual op amp. This component is positioned in a socket to allow swapping with other op amps for sonic experimentation. Be sure to only swap with op amps that have the same pin configuration as the TL082. If you have questions about acceptable replacement op amps, please contact Henretta Engineering.

TROUBLESHOOTING TIP

The inside of the Green Zapper is packed pretty tightly, and slight differences in guitar cable plug design may have an effect on performance. Some cable brands have plugs that are longer and/or thicker than others. If you plug a cable into the Green Zapper and it pops the other cable a little out of the jack, then you may have an interference issue. The audible symptom of this issue is typically a drop in volume and loss of auto filtering effect when the pedal is activated. The simplest solution is to put a small o-ring, piece of tape, or section of shrink tube around the offending plug to act as a spacer to keep it 1/32"-1/16" out of the jack. This will eliminate the interference without compromising the effect.