

The Crushinator

Dual Channel Overdrive/Distortion/Fuzz/Bit-Crusher

by Verdant Wolf FX

Made by hand in Evanston, Illinois

VerdantWolfFX.com

Owner's Manual

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Introduction

The Crushinator is a dual channel, fully analog, true-bypass, distortion effects pedal. It can deliver a diverse set of sounds, from edge-of-breakup overdrive, to whacked out velcro-sounding gated fuzz, and a footswitch to toggle between them. And all of this with a touch of treble to help cut through the mix. Sounds great with guitar or bass.

The circuit is based on our interpretation of two classic distortion circuits (EHX LPB1¹ and Mosrite Fuzzrite²) and a panning circuit by R.G. Keen³ that blends between them. For this pedal's secret sauce, **Crush Mode** cuts the op-amp's feedback bias for that overblown sound you're obviously here for.

Modes

There are two modes: “**DEFAULT**” and “**CRUSH**.”

DEFAULT MODE

Good for a traditional distortion sound, with a fuller frequency spectrum, capable of some interesting overtones. *Use the left control knob* to adjust the distortion. Fully counterclockwise for an edge-of-breakup, light overdrive. Fully clockwise for wild and wooly, spitting, ripped-speaker fuzz.

CRUSH MODE

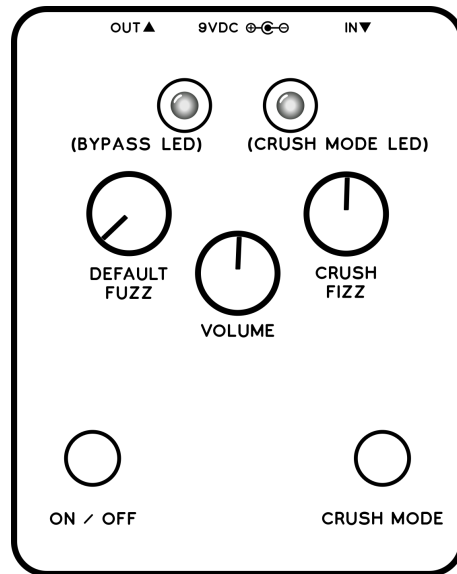
Good for a gnarly fuzz with a tighter frequency spectrum. *Use the right control knob* to adjust the distortion. Fully counterclockwise for smooth, full-sounding fuzz. Fully clockwise for squashed, gated, farty treble fuzz that sounds like it came out of an ancient video game console.

¹ <https://www.coda-effects.com/p/lpb1-circuit-analysis.html>

² <https://www.freestompboxes.org/viewtopic.php?t=9160>

³ described in a document called, “Panning for fun” http://www.geofex.com/Article_Folders/panner.pdf

Controls



- The left footswitch ("ON/OFF") toggles the pedal on or off. When the left LED ("BYPASS LED") is lit, the pedal is on.
- The right footswitch ("CRUSH MODE") toggles between **"DEFAULT"** and **"CRUSH."** When the right LED ("CRUSH MODE LED") is lit, the pedal is in **Crush Mode**.
- The middle dial, ("VOLUME"), is the master volume control and works whenever the pedal is on.
- The left dial ("DEFAULT FUZZ") only controls the distortion when the pedal is in DEFAULT mode.
- The right dial ("CRUSH FIZZ") only controls the distortion when the pedal is in CRUSH mode.

Power

This pedal uses a standard 2.1mm Boss-compatible power jack and expects **9 Volts DC** with the center pin **NEGATIVE**. Inserting a power source with the wrong voltage or wrong polarity **WILL DAMAGE THE PEDAL**.

Advanced

You may find that the relative volumes between the channels are not ideal for your favorite distortion settings. There is a trimpot inside that you can use to adjust the volume of the LPB1 circuit (the circuit that is engaged when the distortion knobs are set all the way counter-clockwise).