

HalfLife



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Sunn O))) and EarthQuaker Devices are pleased to bring you the most compact, pedalboard-friendly version of the Life Pedal distortion circuit to date – the Sunn O))) HalfLife Octave Distortion + Booster. The HalfLife may be half the size of its ancestors, but it's just as heavy.

Birth of a Life Pedal

In the writing sessions for *Life Metal*, Stephen & Greg worked extensively shearing their tones toward a broader energy spectrum over high-powered saturation and across planes of sonic character with the ambition to take full advantage of Steve Albini's (the recording engineer for the album) exacting capture skills.

The results are astounding. There is breadth and luminosity of color, vast sonic cosmoses, and flashes of abstract color (synthetic and objective) through resulting themes which emerged from the mastered depths of saturation and circuits between the two players and their mountains of gear.

Like the Life Pedal, HalfLife is designed to represent the core front end chain used in those sessions to drive the tubes of the band's multiple vintage Sunn O))) Model T amplifiers (or take your fancy) into overload ecstasy. This is a 100W tube amp full stack's holy dream or its apostate nightmare.

An octave fuzz inspired by the Shin-Ei FY2 & FY6 units leads the circuit into a brutal big-box rodent-inspired distortion recreated with the best components and including a three-way clipping switch (OpAmp, Asymmetric & Symmetric). The second stage is a purely clean boost to further overdrive the preamp tubes of your vintage system into scaped harmonics and feedback overtone bliss.

HalfLife is the mass production successor to the Sunn O))) HalfLife Fer MMXXV – a limited edition run housed in a cast iron enclosure made using a centuries-old technique known as Nanbu-tekki (南部鉄器).

Chasms are cleared, mountains sheared, glaciers calved, novæ birthed. Vintage valve amplifiers recommended. We hope you transcend.

Designed and manufactured by EarthQuaker Devices in the dark corridors of Akron, Ohio.

What is it?

HalfLife is a distortion with a blendable analog octave up and a booster combined in one compact package. The “Amplitude” side is faithfully modelled after the classic “White Face” distortion unit. The only modifications made to the original circuit are in the clipping section. The traditional circuit uses a single pair of silicon diodes for a tight, compressed crunch. HalfLife introduces two additional clipping options to better adapt to different rigs. The first position is no diodes to allow for a full, grinding Op Amp assault at maximum volume. The second position utilizes two silicon diodes and one LED in an asymmetrical clipping configuration. This delivers a slightly compressed and smooth crunch, similar to a valve amplifier. The last position is the stock double silicon diode configuration, which provides that classic tone you know and love.

The Octave in HalfLife is an all-discrete analog full-wave rectifier circuit. Located at the input of the circuit, the Octave control slowly blends in the octave effects as you turn it clockwise. This feature can also be used via expression control, allowing for wild, hands-free octave swells mid-riff. Because this is an analog octave effect, it is monophonic and works best playing single notes above the twelfth fret while using the neck pickup. Playing chords with the analog octave will sound clanging and chaotic. Using the bridge pickup and playing below the twelfth fret will produce a very subtle octave effect. Going full Octave transforms HalfLife from a simple distortion device into a swelling, raging fuzz similar to the classic Super Fuzz!

The “Magnitude” section of HalfLife is a simple all-discrete MOSFET booster designed to blast your preamp tubes and drive them wild. It is a 100% clean, no-nonsense, high impedance booster that adds very little color to your tone. It does not add distortion on its own but has plenty of output to push your amp into saturation.

The signal path is Octave > Distortion > Boost. The octave distortion and booster can be used independently with their own respective footswitches. The right footswitch is the octave distortion, and the left footswitch is the booster.

Controls

Octave (O): This blends in the analog octave as you turn it clockwise.

Distortion (D): Turn clockwise for more distortion, counterclockwise for less. This provides about +60dB of gain.

Filter (F): This is a low pass filter with a frequency response from around 500 Hz to 30 kHz. Turn counterclockwise for more high-end, clockwise for less.

Amplitude (AMP): Output volume for the octave distortion side. Clockwise for more hearing loss, counterclockwise for a healthy life in old age.

Clipping Switch (CLIP):

- **OpAmp:** No diodes to allow for full, grinding Op Amp assault at maximum volume.
- **Asymm:** Utilizes two silicon diodes and one LED in an asymmetrical clipping configuration. This delivers a slightly compressed and smooth crunch, similar to a valve amplifier.
- **Symm:** This is the stock double silicon diode configuration, which provides that classic tone you know and love.

Magnitude (MAG): This is the output volume for the booster. Clockwise to blow up your amp, counterclockwise if you're a baby. Unity is somewhere right around noon on the dial.

Right Footswitch: Octave Distortion Activator

Left Footswitch: Boost Activator

Octave EXP jack: Connect any expression pedal to this input to control the analog octave blend. Before inserting the expression pedal, make sure the pedal is powered off.

Flexi-Switch® Technology

This device features Flexi-Switch® Technology! This relay-based, true-bypass switching style allows you to simultaneously use momentary and latching-style switching.

- **For standard latching operation:** Tap the footswitch once to activate the effect and then tap again to bypass.
- **For momentary operation:** Hold the footswitch down for as long as you'd like to use the effect. Once you release the switch, the effect will be bypassed.

Since the switching is relay-based, it requires power to pass a signal.

Power Requirements

Current Draw: 15 mA

This device takes a standard 9-volt DC power supply with a 2.1mm negative center barrel. We always recommend pedal-specific, transformer-isolated wall-wart power supplies or multiple isolated-output supplies. Pedals will make extra noise if there is ripple or unclean power. Switching-type power supplies, daisy chains, and non-pedal specific power supplies do not filter dirty power as well and let through unwanted noise. DO NOT RUN AT HIGHER VOLTAGES!

Tech Specs

Octave Distortion:

- Input impedance: 1 M Ω
- Output impedance: <1 k Ω

Booster:

- Input impedance: 500 k Ω
- Output impedance: <1 k Ω

Warranty

This device has a limited lifetime warranty. If it breaks, we will fix it. Should you encounter any issues, please visit earthquakerdevices.com/support.