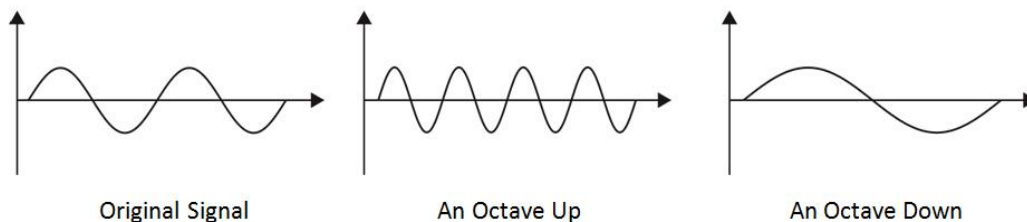


Skyline Octa White Paper

The Hotone Skyline Octa stompbox is a dual mode octave effects pedal. The two octave modes utilize separate algorithms, and the tones available from each suit a variety of genres and playing styles.

In music, an octave represents the interval between one musical pitch and another with half or double its frequency. Octave effects take the guitar signal up or down one or even two full octaves. As it is overlaid on the original (clean) signal and adjustments are made to the proportion of these two tones, what results is a rich and thick sound with qualities similar to an organ. The effect takes the original guitar signal waveform and either doubles it or halves it in terms of frequency.



• Dirty Mode

Before the advent of digital technology, the octave effect generally relied on special analog circuitry. The circuit took the incoming signal through a certain inversion path, taking the signal frequency down one or two octaves. The Octa DIRTY mode models that kind of classic signal treatment, allowing the instrument to play tones one or two octaves lower than normal.

The resulting DIRTY tone is characterized by an unaffected, sinewave-sounding timbre. The intonation is perfect and there is no lag, so the dual tone feels in sync as you play. Because of this unique circuitry, the DIRTY mode is limited to single note playing; simultaneously playing more than one note will result in extra noise, as will letting a note ring out very long. That's why we call it DIRTY mode.

• Poly Mode

As technology continued to develop, engineers discovered different methods to achieve the octave sound. The Pitch Shifter algorithm was developed in an attempt to capture the characteristics of the organ. Built upon the principles of the Doppler effect, the algorithm could produce changes in pitch by using varying speeds within a certain time domain. Here, the octave effect is simply a function of pitch shifting, creating a full octave shift according to a particular key.

The Hotone Skyline Octa effect uses a pitch shifting algorithm to produce the octave sound in POLY mode. In this mode, Octa delivers an octave up and octave down, each adjustable by dedicated volume knobs. As the original signal is worked in, the musician can enjoy a hi-mid-low triple tiered range, and with so much adjustability, tonal expression is virtually limitless.

Because the original signal is shifted within a certain time domain in POLY mode, the musician will notice a slight delay during play. This is a must if the pedal is to preserve the purity of that signal. Also characteristic of the pitch shifting algorithm is a slight change in the pitch of some notes.

Although there are technical limitations, POLY mode allows musicians to play multiple strings (chords) and thus allows for greater freedom in performance expression.

The Hotone Skyline Octa stompbox is set to perform in any venue for every genre. DIRTY mode shines in the hands of shredders making face-melting solo runs: it's thick and dimensional, giving you a sense of being surrounded. POLY mode finds a place across the spectrum of playing styles. When you get the high and low octaves going, you can have the smooth and warm body of an organ. With both DIRTY and POLY octave modes available, this stompbox is ready to satisfy the octave needs of basically every guitarist out there.