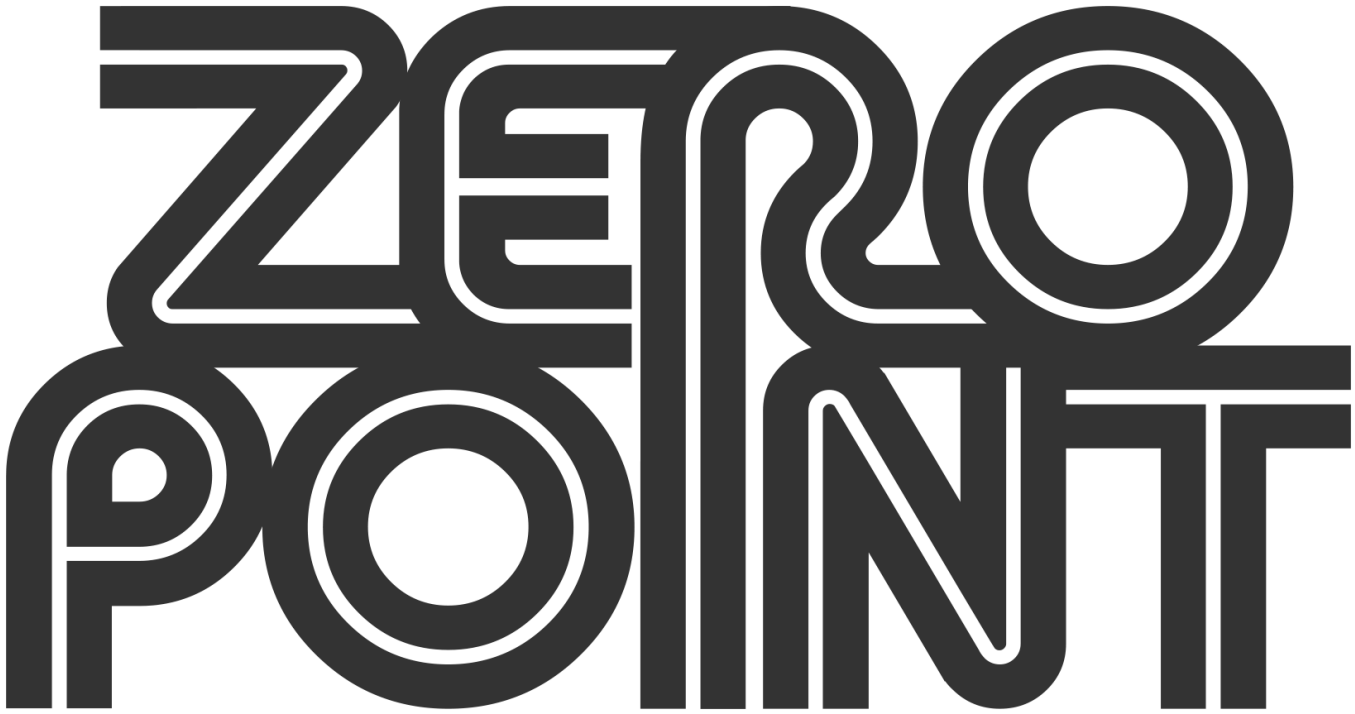

Catalinbread Zero Point User Guide

It's uncertain what exactly the origin of flanging was. It could have been the result of trying to push the boundaries of multitrack recording, probably due to running a couple tape machines in parallel but not quite in sync… Maybe a guy messing around in the studio brushed up against a take-up reel flange accidentally? Maybe that guy was Les Paul, maybe it was John Lennon and George Martin? It is unclear. But, what is clear is that the mechanical studio method of achieving the effect became, within a decade, commonplace enough for companies to simulate the effect electronically. The electronic approaches were pretty cool and groundbreaking, but by the 80s became tired and worn out. At Catalinbread we attribute this to the fact that these units controlled the flange effect using an LFO that went up and down at a predictable rate taking the life and freshness out of the effect. When we decided to design a flanger, we knew we would approach it the way they originally did it…

catalinbread
MECHANISMS OF MUSIC

Introduction

The Catalinbread Zero Point is an interactive pedal that was inspired by the original studio flanging effect - not the plugins or the rackmount units with thousands of options, but the old-school version: two tape machines, a thumb, and lots of patience. Traditionally, the effect was created by audio engineers and producers placing two copies of the same track on two different tape machines, gradually slowing one of them down, and capturing the output as a new track.

Even before anyone pressed on the flange to slow down the tape, the natural wow and flutter of two different machines would create a slow-rolling shallow phasing/flanging sound. Once the flange was pressed down, the resulting comb-filtering would sweep across the full frequency range, creating flanging. More adventurous producers found that inverting the phase of one of the tracks would cause the comb filtering to sweep towards a “zero point” - where both signals are equally delayed and perfectly out of phase, thus canceling each other out.

Our feeling is that when flange is applied with the feel of the music, the way that producers have done it, it’s a more musical effect than when flanging is controlled by a rigid, predictable LFO. You know that trite up and down flanger sound which had an expiration date back in 1992? (Don’t take this the wrong way, we really do love The Cure).

Features

ON/OFF switch - turns pedal on and off

FLANGE switch - Controls the up-sweep and down-sweep of the flange effect. When this switch is pressed down, the flange effect sweeps upward. When the switch is released, the flange effect sweeps back down. Essentially, this switch simulates applying pressure with your thumb on the “flange”, creating the flanging effect. In subtractive mode, holding down the momentary switch will eventually cause the two signals to cancel out when they’re delayed by the same amount, and out of phase.

GAIN trimpot (internal) - controls the overall gain of the Zero Point. It’s factory-set for a very slight bump in volume when the pedal is engaged. Because this trimpot is accessed from the back of the pedal, the control range appears reversed: turn left to increase gain, turn right to decrease gain.

Quick Start

Start out by first plugging your Zero Point in toward the end of your pedal chain, after your favorite dirt box (may we suggest a Dirty Little Secret?). When you turn it on for the first time you will be struck by how it adds a nice tape compression and gritty tape-like harmonics to your sound as well as adding very subtle modulation simulating the tape machine tension arm’s effect on the inertia of the moving tape.

Continue to play, and begin to hold down the flange button. You’ll notice that the somewhat random and shallow flanging effect will begin to focus and sweep through the full frequency range. Now, let the button go, and notice the tension arms and springs take up the tape slack and bring you back to where you started. Within a short time of interacting with the Flange Push-Button and playing you will find your mind free of thought, while music effortlessly flows from your fingers.

By default, the Zero Point keeps both signals in phase. We call this **additive** mode. This is the most easy to use setting out of the box. If you're feeling adventurous, connect the power supply to the pedal while holding down the momentary "flange" switch. Next time you turn on your pedal, the LED will be red instead of green. Don't panic: it means you're in **subtractive** mode. One of the "tape machines" is now out of phase with the other, and now the flange sweep will become thinner and more wispy until it ultimately reaches complete cancellation.

To return the pedal to **additive** mode, disconnect and reconnect the power supply. You'll notice the LED now glows green.

Implementation

Since historically the flange effect was created from full tracks, we recommend that you place this pedal close to the end of your effect chain, right before your amp, or maybe a finishing reverb (like the Talisman), if you have one. Some kind of distortion or overdrive preceding the Zero Point will yield the best results. Generally, the wider the harmonic range of the signal going into Zero Point, the more pronounced and dramatic the effect will be.

Same consideration goes for the tone knob on your guitar, which usually works by rolling off higher frequency content. Keeping your tone rolled off, and playing on your neck pickup will result in a much more subtle effect. This also should inform your playing - full chords, modulated echoes, sloppy and greasy riffs all take flange well. Putting the effect on single quiet notes will probably not be as exciting, though. But by all means, experiment to see where the Zero Point makes sense in your songs. It's very likely that a gentle tape-y, rolling doubling of simple notes is exactly what your part needs.

Specifications

Input impedance: 200K

Power supply: 9-18v center-negative DC

Current draw: 65mA

Dimensions: 2.34"x4.39"

Weight: 12oz

Operating conditions: the temperature, atmospheric pressure, gravity and humidity tolerances equal or exceed those of an average human being.