



Overview & Spec

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Zenith : Amplitude Controller

FEATURES

- +20dB of completely clean and transparent gain
- Active 3 band EQ voiced to have an amp like and natural feel
- Switchable mid frequency and Q for powerful tone shaping
- Incredibly transparent compression circuit with a low noise floor
- Blend control to dial in the feel of the compression
- Switchable order of the EQ and Comp circuits plus a Parallel mode
- Secret Switching to give full control over the EQ and Comp circuits independently
- Control input for switching via an external footswitch such as a GigRig G2/3

CONTROLS

- COMP - Controls the amount of compression from subtle level balancing to hard compression and long sustain.
- BLEND - Blends between EQ (Dry in '**Comp Only**' mode) and the Compression circuit
- LEVEL - Controls the output level. Use as a subtle boost or cut to balance the level to unity or boost up to 20dB.
 - **NOTE** : Level controls only the EQ circuit when in **Parallel** and is bypassed when in '**Comp Only**' mode.
- BASS - Controls 15dB of bass frequency boost or cut
- MIDDLE - Controls 15dB of mid frequency boost or cut
- TREBLE - Controls 15dB of treble frequency boost or cut
- MID Q - Sets the bandwidth of the Middle control to wide, medium or narrow
- MID FREQUENCY - Sets the Mid frequency to 500Hz, 800Hz or 1.2KHz
- ORDER SWITCH - Sets the order of the Compressor and EQ circuits.
 - Compressor into EQ
 - Both circuits in Parallel
 - EQ into the Compressor
- INTERNAL TRIM POT - Sets the master level of the Compressor circuit. This can be used as make up gain on certain compressor settings if necessary.

BOOST

1. Zenith has up to 20dB of boost available from the Level control. This is completely clean gain and the 30V of internal headroom means the even the hottest pickups won't cause internal clipping on any setting. The circuit is very similar to Ascent, so the extra headroom also means that the quietest dynamics in your playing are boosted equally, so can really feel like the pedal is adding detail when boosting.
2. There is an internal trim pot for boosting the level of just the compressor circuit by up to 10dB. This is only really for specific settings when in 'Comp Only' mode to balance out the level if a high Comp setting is used, so not necessary for normal operation.

EQ

1. We have aimed to voice the EQ to not only sound but *feel* as natural as possible to use. Compared to many EQ controls that can sound quite like a filter, we have tried to make the EQ behave more like an amp EQ but with very linear and consistent operation.
2. We have also tried to make every setting usable, even cutting bass completely gives a boxy but vibey funk/Motown tone, or when boosting treble fully the top end is glassy and present, but doesn't get harsh or 'ice picky'.
3. A big part of the concept of Zenith is to bring studio tone to your guitar rig. From subtle to more extreme settings, the EQ gets you a tone that sounds like a record.
4. The Middle control has two switches controlling the centre frequency and bandwidth. This allows precise control on the high Q setting to fix EQ issues or highlight note attack, or more broader control over the mid range for subtle tone shaping or to even completely change the voice of your set up.

COMPRESSION

1. We wanted to make the compression circuit in Zenith easy enough for any guitarist to use and get to grips with, but also super high quality. The attack time is very fast to grab your note, but can easily be tamed with the blend control. The release is quite long allowing very high levels of sustain at more extreme settings.
2. Even though Comp is only one knob, we wanted to get as much versatility out of it as possible. When fully counter clockwise there is no compression and up to roughly the 11 o'clock position the compressor circuit is acting more as a limiter, bringing up the lower dynamics until your quietest notes are the same level as the loudest.
3. After the 11 o'clock position, the compressor will really start to grab the front of the note and up to fully clockwise can get some nice squashy dynamics and long note sustain going on.
4. Blend has become a pretty common feature on compression pedals and works really well to dial back in the front of the note. This is particularly useful when you want to keep your dynamics, but just increase the sustain.

CIRCUIT ORDER SWITCH

1. One of the most powerful features of Zenith is the circuit order switch. Changing the order of a compressor and EQ is a common practice in studios, but with Zenith it is the first time this has been brought to a compact guitar pedal.
2. Comp into EQ Mode: This setting is the most standard, with the full frequency range from the instrument hitting the compressor. Any changes to the EQ will not affect the compression.
3. EQ into Comp Mode: On this setting, any changes to the EQ will affect how the compressor reacts. For example, because the compressor reacts to the highest amplitude of the signal, boosting the treble will make it respond dynamically to those frequencies more than the others.
4. Parallel Mode: This mode opens up a huge range of possibilities and new sounds. The signal is split by a buffer so 100% is sent to the compressor circuit, and 100% to the EQ. They are then summed before being sent to the output. In this mode the Comp circuit operates at X1 gain (boostable with the internal trim pot) and the EQ is controlled by the Level knob.

SECRET SWITCHING

1. Zenith is the first Hamstead Soundworks pedal to feature Secret Switching. While 100% of the audio circuitry is analogue, the switching is controlled digitally opening up new options and increased versatility. This allows the Comp and EQ circuits to be switched individually, all via one Optokick footswitch.
2. We had two main thoughts behind the Secret Switching; firstly to bring back some functionality to the footswitch on the pedal when used in a set up with a looper, and secondly to allow access to all possible combinations via one footswitch. While trying to keep the pedal as compact as possible, we felt adding a second physical footswitch would not give enough space to be used practically on a tightly packed pedalboard.
3. To access the programming mode, just hold down the Optokick for 2 seconds and both lights will start to flash. Pressing the Optokick again will then scroll through the options and to select one just leave it on the desired option for 4 seconds. Zenith will then exit programming mode and will remember the chosen mode even after being switched off.
4. The switching options are as follows:
 1. **Standard** - Both LEDs on
 - EQ On + Comp On // Bypass
 2. **Flip Flop** - LEDs flashing alternately
 - EQ On // Comp On
 3. **Comp Always On** - Just the Comp LED lit
 - Comp On // EQ On + Comp On
 4. **EQ Always On** - Just the EQ LED lit
 - EQ On // EQ On + Comp On
 5. **Cycle** - Comp LED lit and EQ LED flashing
 - Both On // EQ On // Comp On // Bypass

CONTROL INPUT

1. Control is an input to be used with an external switching device such as a GigRig G2/3. When a control signal is sent it overrides the footswitch on Zenith and can be used to switch the Comp and EQ circuits independently.

POWER : DC **ONLY** (centre negative)

9V 280mA

12V 200mA

18V 160mA

IN : Mono instrument input

OUT : Mono signal output

SPECIFICATION

- All-analogue design with digital control
- Dimensions : 70w x 130d x 65h mm (includes hardware)
- Weight : 575g / 1.27lbs
- Input impedance : 600k Ohms
- Output Impedance : < 300 Ohms
- Warranty : 5 Year Limited Warranty

Zenith features silent optical switching and The GigRig's OptoKick footswitch for excellent reliability.

