



TEETH

instructions

Thankyou for purchasing a Horrothia pedal! Many many hours went into its development, and many sleepless nights went by obsessing over tiny details. Long may you enjoy it!

The Horrothia Teeth is a low gain overdrive pedal. It has an entirely discrete, transistor based signal path - there are no IC operational amplifiers. Instead, it has two op-amps made from carefully chosen transistors, much like in high-end esoteric pro audio or hi-fi. The benefits of this are greater signal clarity and better phase coherence. The overdrive breakup of the pedal is more graceful, and softer. Much less high-mid frequency harshness. Inside it has a voltage doubler, so internally it works from around 16.5V for greater headroom before breakup.



Saturation control.

The saturation control has two functions, it is a dry / wet balance and also a gain control. At full anti-clockwise, the balance is nearly fully clean, and what overdrive is present is at its lowest gain. Full clockwise, the opposite; almost entirely overdriven, and at maximum gain.

Gain Stage control.

This sets the maximum amount of gain that the Saturation control works within.

Clipping control.

Controls how hard the clipping on the overdrive path is. Towards HARD the wave is clipped in a squarer, more abrupt way for a more distorted sound. Towards SOFT the top of the waveform is squashed and limited - more like a compressor.

Breath switch.

This is a high-mid frequency boost around 1.2 - 1.5kHz, to bring some 'air' or 'breath' to the signal. Works brilliantly in out of phase settings to cut through the band mix.

Volume control.

Output level. Beware, at full it is very loud.

DC input.

The Teeth is powered by 9V DC. The socket is a 2.1mm jack, centre negative, compatible with most guitar effects power supplies. Do not connect a supply greater than 10V to the pedal as it could potentially damage the unit. The Teeth has power supply filtering, but we would always suggest using a high quality linear power supply. Cheap, low quality power supplies can introduce buzz, noise and potential intermittency to the signal.

Instrument and Amplifier jacks

Input and output jacks are high quality ¼" / 6.35mm. Plug your guitar / synth / theremin in here, and rest of pedal chain / amplifier here.

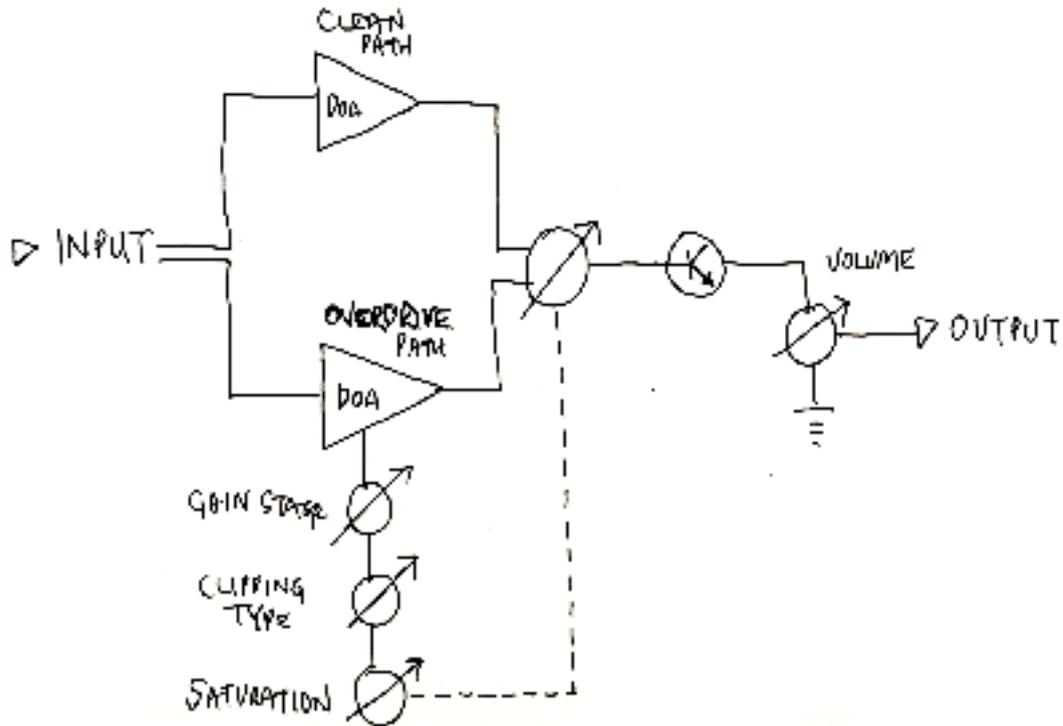
Engage LED.

When the LED is on, the pedal is engaged, and the effect is on. When the LED is off, the effect is bypassed.

Footswitch.

The footswitch toggles the effect on and off. When the effect is off, it is bypassed with a relay, so entirely out of the signal path.

Block diagram of the Teeth



Horrothia Teeth specifications

Input impedance: 1Mohm

Output impedance: ~1k ohm

Power supply: 2.1mm / 5.5mm, centre negative barrel.

Current draw: 55mA

Some thoughts...

- Use high quality, low impedance, low capacitance guitar cables with a braided screen for optimum signal to noise and most uncoloured / transparent tone. We use Sommer SC-Spirit LLX to test.
- High quality parts are used throughout. The DC jack is mounted to the case rather than the main PCB for stability and long life. PCBs are high quality for long life and to give high quality, low resistance solder joints.
- If you have any questions, please contact us at hello@horrothia.com.