

StereoCompress

Thanks for picking up the BugBrand **Stereo Compress** !

The Stereo Compress is a high quality Voltage Controlled Amplifier (VCA) based compressor for single channel mono or ganged stereo processing. Its functions are best considered in two parts – the Audio Path and the Side Chain Control.

Audio Path:

The Left & Right side audio paths are identical. For Mono use, either input can be used.

Inputs are on Electronically Balanced 1/4" Jack.

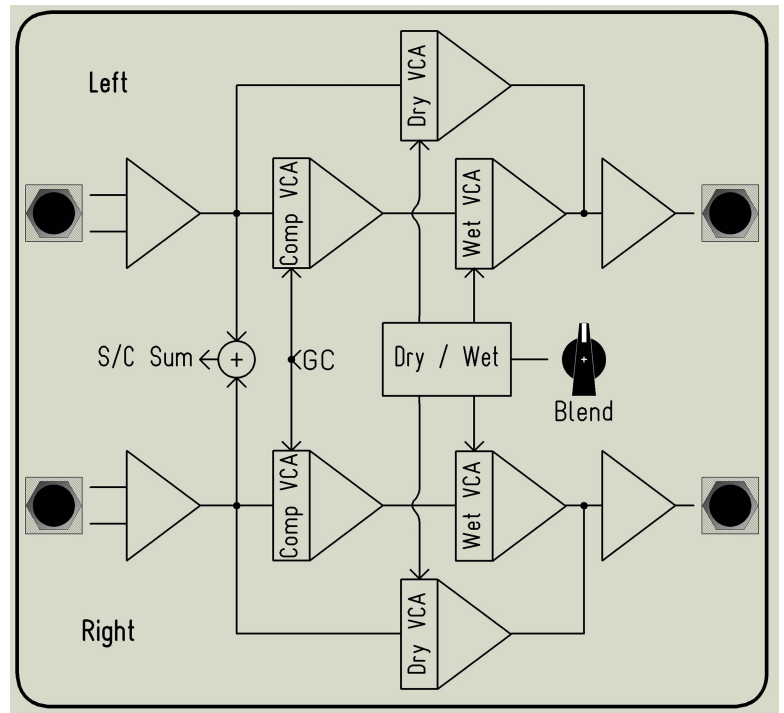
Input Impedance 20k Ω

Tip Hot, Ring Cold

The input is unbalanced via a differential input amplifier before feeding the internal VCAs.

The Compression path VCA is controlled by the Side Chain Gain Control signal.

The Blend dial generates an Equal-power Cross-Fade control for the Dry/Wet VCAs.



Each channel has an output buffer to feed the Impedance Balanced 1/4" Output Jacks.

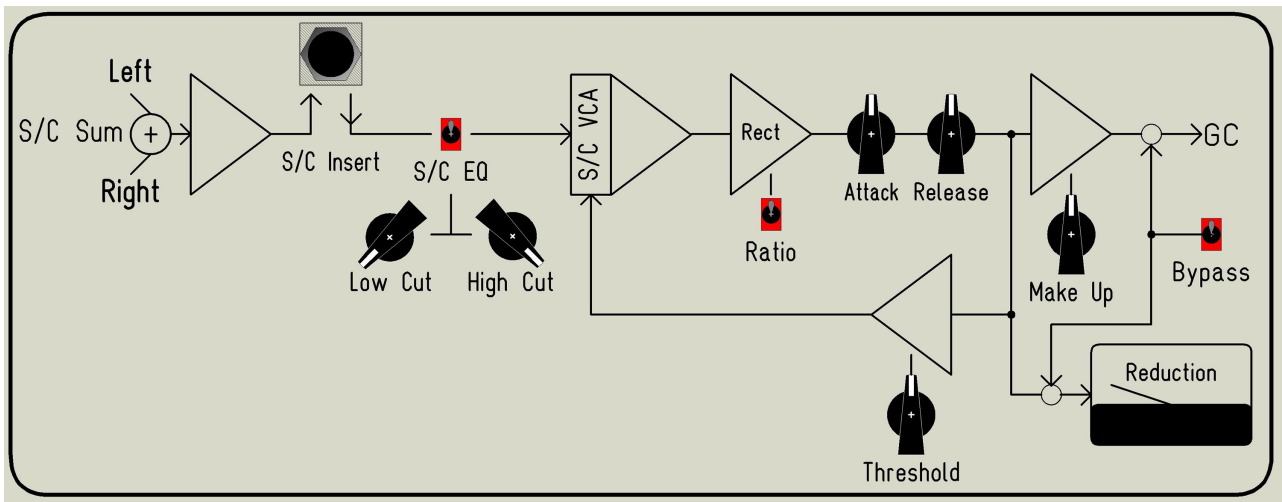
Output Impedance 100 Ω

Tip Signal, Ring 100 Ω to Signal 0V

The Sleeve connection of all Input/Output sockets is selectable via internal jumper between Chassis or Signal 0V – set to Chassis as standard.

Frequency Response for the unit is within 0.5dB over the range 20-20kHz.

Side Chain:



The Side Chain path equally sums the Left and Right Audio signals, tapped before the Compression VCAs. The SideChain 1/4" Jack allows this signal to either be externally processed via Send/Return Insert or replaced by an external signal.

Tip – Return – 10k Ω Input Impedance (Normalised to Ring/Send)

Ring – Send – 100 Ω Output Impedance

Sleeve – Signal 0V

Low and High Cut filters with a 12dB/Oct response follow the Insert point and can be bypassed by the SideChain EQ switch. For 'no effect' operation the Low Cut dial can be turned fully anti-clockwise and the High Cut dial fully clockwise.

Low Cut Filter – 20Hz to 3kHz

High Cut Filter – 250Hz to 20kHz

Side Chain processing is based around a further VCA stage in Feedback arrangement governed by the Threshold control. The control signal is rectified, then scaled to give the Ratio settings and slewed via the continuously variable Attack and Release Time Constant controls. The resulting signal drives the Reduction Meter and is summed with a variable Make Up Gain offset to generate the Gain Control Signal. The electronic Bypass switching disables both the Gain Control signal and Reduction Meter with its associated LED indication.

Ratio – 2:1, 4:1, 10:1

Attack – 0.05 to 50ms

Release – 50ms to 1.2s

Threshold – +15dBu to -50dBu

Make Up Gain – 0 to +30dBu

Meter Range – approx 0 to 14dB Reduction

Power: The unit comes with a universal (90-264V AC) power supply which provides 12VDC @ 500mA on a centre positive 2.1mm DC plug. An internal DC-DC converter generates a bipolar +/-15VDC supply within the unit.

Guarantee: The Stereo Compress comes with a 2 year 'reasonable' warranty. If any mechanical or electronic failure occurs within the period, I will repair the fault free of charge. This excludes failure from maltreatment or modification and any cosmetic degradation. Contact should first be made via email to discuss the problem. Shipping to return the device is paid by the user and I cover return shipping. Failures that are not covered by this guarantee may be fixed at standard rates.

Enjoy! Tom Bugs – October 2015 – www.bugbrand.co.uk – tom@bugbrand.co.uk