Call76

COMPACT BASS-COMPRESSOR

Based on ORIGIN EFFECTS Cali76 Compact Bass

The Call76 Compact Bass is an 1176-style studio-grade FET compressor, complete with dedicated controls for parallel compression and sidechain filtering. We've taken everything that was great about the original Call76, added new features optimised for bass and compressed the whole lot down into a pedalboard-friendly package!

A single combined Attack/Release control provides a continuous sweep of useful settings while avoiding combinations that can result in ugly distortion artefacts creeping into the lower registers.

In addition to this pedal's low-noise circuitry and fast, musical FET response, two special features lift the Call76 Compact Bass above the competition.

The first is the Dry Blend control, which lets you mix your dry signal back in with your compressed signal for true parallel compression, an indispensable studio recording technique. By combining the compressed and dry signals, you get all of the tone thickening and increased sensitivity of the Cali76's 1176-style compression, while retaining the natural attack and dynamic expression in your playing. It's the ultimate in transparent compression – both fat and punchy at the same time.

This pedal's second secret weapon is also culled from the studio engineer's handbook. The Call76 Compact Bass allows you to rein in the amount of compression applied to the lowest frequencies via a variable-frequency high-pass filter placed in the compressor's sidechain. With the HPF control dialled in, the compression ratio effectively becomes frequency dependant. The low strings come back to life, adopting an extra weightiness, power and dynamic response, while the higher strings are strictly controlled, preventing slapped and popped notes from leaping out of the mix. This unique bass compressor is like having your own studio engineer sat on your pedalboard!

Key Features:

- 100% Class-A discrete signal path
- Classic, ultra fast "FET" response
- Studio-grade discrete-transistor preamp
- Combined Attack/Release control
- Dedicated Ratio control
- Dry Blend control for parallel compression
- Variable-frequency sidechain filter (HPF) control
- Optimised for bass but can process any source
- High-current, low-noise electronics
- Ultra-wide frequency response
- Ultra-high input impedance
- Silent switching
- High-quality "signal-conditioning" bypass mode
- Premium components throughout
- Advanced power supply filtering and protection
- Flexible external power requirements (9-18V DC)
- PSU Spec. 78mA @ 9V / 103mA @ 18V
- Designed in England

Designed By UK

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INTRODUCTION

The Call76 Compact Series is a range of premium-quality, 1960s-style FET compressors, each inspired by the legendary Urei 1176. The idea behind the range was to bring the sonic properties of this revered studio classic into the scope of the average guitar geek… The topology of each design was kept true to the original, while the actual circuitry has been carefully condensed. In this way it has been possible to retain the much-loved dynamic response of the original, while at the same time permitting a smaller, more stage friendly format.

Excluding the VU meter (where applicable), the circuitry is wholly transistor-based (otherwise known as "discrete"). Well designed transistor circuits, in contrast to IC-based designs, generate fewer harsh distortion artefacts. In addition, subtle harmonics are created which can positively enhance tone.

We've included a studio-grade 1960s-style discrete preamp, to work as an electronic interface between your bass and the compressor. The preamp provides gain and also creates the optimum conditions for signal transfer.

In designing the Compact Series pedals, Origin Effects has gone to painstaking lengths to preserve the build quality and sonic integrity of the original Cali76 and SlideRIG circuits, even improving on them where possible.

The further reduction in size has been achieved by using a mixture of traditional through-hole and SMD components, spread across a pair of densely populated, stacked boards. The signal path utilises film and tantalum capacitors, carefully chosen low-noise transistors and rugged MELF resistors (essentially traditional through-hole resistors without the leads), which offer low-noise performance and rock-solid reliability.

OUT: The Out control simply determines the level of the signal present at the pedal's output. This can be set in order to keep the overall effected level close to that of the dry (bypass) signal. Alternatively, the level can be increased to help project a guitar solo.

DRY: The Dry control varies the amount of dry, uncompressed signal present at the pedal's output, thereby mixing the original,uneffected signal back in with the compressed signal. You can adjust the balance between the compressed and uncompressed signals by adjusting the Out and Dry knobs accordingly. Correct adjustments should deliver the increased sensitivity and sustain of the compressed signal, combined with the greater dynamic integrity of the uncompressed signal.

RATIO: Turn the Ratio control clockwise to increase the compression ratio. The Ratio control allows the user to adjust the amount of gain reduction applied for any given increase in guitar signal. At the lowest ratio setting, doubling the input signal (an increase of 100%)will result in the output increasing by 19%. At the highest ratio setting, the output would rise by only 3.5% for the same increase in input signal. The latter case represents "limiting". As was the case in the Urei 1176, changing the ratio setting also varies the threshold level of the unit. This helps to keep the output at a consistent level, regardless of settings. In practice, lower Ratio settings will provide more gentle, transparent compression, while higher Ratio settings will deliver more aggressive compression with a tightly controlled dynamic range – in other words, the loudest and quietest notes you play will end up at roughly the same level.

IN: The Call76 features a very nice studio-grade input preamplifier. This works as an interface between the guitar and the compressor sections. In exactly the same way, a studio-engineer will first amplify a dry guitar signal before applying additional processing. The In control allows the user to vary the gain of this preamplifier. Turning the In control clockwise increases the overall gain of the pedal. This also increases the amount of compression. The guitar will become increasingly touch sensitive as gain is increased. Too much gain and the preamplifier will clip and distort.Compression is greatly reduced at lower gain settings, as much of the signal entering the compressor section falls below the compressor's internal threshold. Signal level must exceed this threshold in order to initiate gain-reduction. So, at lower gain settings, only the signal peaks are compressed.

HPF: The HPF knob controls the cut-off frequency of a high-pass filter positioned in the compressor's sidechain circuitry. Attenuating low frequencies from the sidechain has the effect of freeing up the low bass strings from excessive compression. This fattens the tone of your instrument and lets the low strings breathe. Dynamic control is still fully active for the higher registers, meaning that any slaps and pops are suitably taken care of! Turning the HPF knob clockwise will raise the cut-off frequency and free up more of the low end.

ATT/REL: Compressor attack and release controls are all too often misunderstood, which is unfortunate as they are instrumental in achieving a usable sound. In most cases attack and release parameters should be adjusted to optimise the compressor's dynamic response to that of a particular instrument. However, they can also be adjusted to create strong dynamic effects. Incorrect settings can produce nasty distortions and frequency-dependant artefacts.

The Att/Rel knob adjusts the two parameters simultaneously to offer the user a choice of the most useful settings without any headaches! All our favourite combinations are here. All the troublesome settings are carefully side-stepped. Just adjust to taste!

The attack parameter can be thought of as the time taken for the compressor to react to the presence of a signal, i.e. the delay from the instant when you play the note to the moment the compressor actually reduces the gain. The longer the attack time/delay, the more pronounced the beginning of each note will sound. Increasing the attack time highlights the percussive "snap" of picked, popped and slapped notes.

The release parameter can be thought of as setting the duration of the gain reduction applied to the signal. This would be measured from the time that compression is triggered to the point that the compressor has returned to its idle state. For maximum effect when processing bass guitar, the release time must be set so that the compressor responds fully to every note played – in other words, short enough for the compressor to fully recover in the time between one note ending and the next note beginning.

Turning the Att/Rel knob clockwise will reduce the release time while increasing the attack time, best for percussive playing. Rotating the Att/Rel knob anti-clockwise will increase the release time while reducing the attack time for a smoother, more “spongy” feel.

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