ORIGIN EFFECTS

Cali76

CALI76 STACKED EDITION

The Cali76 is an 1176-style studio-grade FET compressor, featuring high-current, low-noise, discrete Class-A circuitry. One of the reasons why our compressor pedals sound so good is that they deliver true FET compression, with a fast yet highly musical response that is a world away from the brutal and unforgiving sound of traditional VCA compressor pedal designs.

The Cali76 Stacked Edition features two of our Cali76 compressor circuits, arranged in series. Running your signal through two of these ultra-quiet, ultra-transparent 1176-style FET compressors, one after the other, delivers incredible clean sustain and touch sensitivity.

It's exactly the same principle behind our celebrated SlideRIG series. But while many parameters inside the SlideRIG are fixed, the Cali76 Stacked Edition's gold Thru knob gives you the freedom to adjust the way the two compressors interact, allowing you to explore a much wider range of single- and dual-stage compression settings.

With independently adjustable Attack/Release controls for each compression stage, independent gain reduction VU meters and independent compressed and dry signal level controls, the Stacked Edition lets you dial in the sound of a Cali76, the sound of a SlideRIG and anything in between.

Origin Effects...

Key Features:

- 100% Class-A discrete signal path
- Classic, ultra-fast “FET” response
- Studio-grade discrete-transistor preamp
- Input/Comp level, Master Output level and Dry Blend controls
- Thru control sets signal level fed to second compressor stage
- Independent Attack/Release controls for each stage
- Independent gain reduction VU meters
- Optimised for guitar 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. 82mA @ 9V / 108mA @ 18V
- Designed and built in England

...Purity of Tone

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ABOUT THE CALI76 STACKED EDITION

The Cali76 and SlideRIG were the very first pedals we introduced. Loved by many of the same players for many of the same reasons, they were nevertheless designed to fulfil two distinct roles.

The Cali76 is a studio-grade, 1960s-style FET compressor, inspired by the legendary Urei 1176 and designed to bring the sonic properties of this revered studio classic into the scope of the average guitar player. The SlideRIG puts two of these compressors back-to-back for extreme clean sustain, just as Lowell George chained two 1176's together in the studio on so many classic Little Feat cuts.

Until now it hasn't been possible to explore the territory in between. That's why we came up with the Cali76 Stacked Edition.

The Stacked Edition uses the same signal path as the SlideRIG but allows for much more adjustment. You can adjust how much signal enters each compression stage as well as the attack and release of each stage. This allows the pedal to not only recreate Cali76 and SlideRIG sounds but also combine two very different styles of compression – mild compression to bring up nuanced playing followed by a limiter, for example.

These controls have been carefully designed to make the potentially complex business of setting up two powerful compressors as easy as possible, while avoiding mismatched settings that could cause distortion and other artefacts. Add in our Dry blend control for true parallel compression and you have a vast range of dynamic flavours at your disposal.

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

Absolutely no opamps or VCAs are used in the signal path. Excluding the VU meters, 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.

Our pedals are powered by mains adaptor only. Dispensing with the usual internal 9V battery option allows more space inside the enclosure for high-quality circuitry, while also supporting the high-current circuit design that is the key to these pedals' astonishingly low noise levels.

CONTROLS

IN: The In control sets the gain of the Cali76 Stacked Edition's studio-grade input preamplifier. This preamp feeds into the front end of the first compressor.

Turning the In control clockwise to increase gain will also increase 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 first 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.

ATT/REL 1: This control sets the attack and release characteristics of the first compression stage inside the pedal. This parameter determines how long it takes for the compressor to react to the presence of a signal and initiate gain reduction (attack) and how long gain reduction then lasts before the compressor returns to idle state (release).

With the Att/Rel knob turned clockwise, the compressor has a slow attack and fast release, best for percussive playing. A slow attack allows the initial transient of each note to avoid compression, thereby emphasising your pick attack, while the fast release means that the compressor can recover in time to react to the next note.

Turned anti-clockwise, the compressor has a fast attack and slow release, offering a smoother, more "spongy" feel. A fast attack means the whole note is compressed, providing more uniform gain reduction, while the slow release means that gain reduction will gently taper off with no sudden "pumping" effects.

THRU: The Thru control sets the level of the signal fed from the output of the first compressor to the input of the second compressor. Just like the In knob, this in turn determines the amount of compression applied by the second compressor.

Turning the Thru control anti-clockwise attenuates the signal leaving the first compressor so that it drops below the threshold of the second compressor, reducing the amount of compression. Turning the control clockwise hits the second compressor harder, increasing compression.

ATT/REL 2: This control sets the attack and release characteristics of the second compressor. Just like the first compressor's Attack/Release controls (above), it ranges from a fast attack and slow release (anti-clockwise) to a slow attack and fast release (clockwise).

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.

OUT: The Out control 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.

VU METERS & JEWEL LIGHT: The central LED, covered by a jewel bezel, indicates bypass status. The LED is on when the effect is engaged and off when in signal-conditioning buffered bypass mode.

To the left and right of this are LED VU meters that provide a clear visual indication of the gain reduction that is occurring in the first (right) and second (left) compression stages.

Watching these independent meters will not only help you understand just how hard each compressor is working – the brighter the light, the greater the gain reduction – but also let you gauge the speed/duration of each compressor's attack and release settings.

CONNECTIVITY & POWER REQUIREMENTS

INSTR: Insert your guitar, other instrument or signal source here. The ultra-high input impedance will even work with piezoelectric pickups, provided that the connected lead is of sufficient quality and is reasonably short in length (a long lead will "load" a piezoelectric pickup, reducing the bandwidth). We strongly recommend placing the Cali76 directly after your guitar, to maximise signal-to-noise ratio.

AMP: Connect to your amp or other pedals. The output impedance is low in all modes, so the unit will drive signals down the connected guitar lead, overcoming the issues of high-frequency signal loss associated with passive bypass systems.

9-18VDC: Insert power here. A high-quality regulated supply should be chosen to avoid damage from voltage surges and other over-voltage conditions. The connector should be the 2.1mm type with the centre-pin "wired negative". For best performance, the pedal should be powered from an 18V supply. This will increase the headroom, allowing cleaner processing of conventional guitar signals. This will also permit the use of hotter source signals, such as active guitar pickups.

MAXIMISING SIGNAL-TO-NOISE RATIO

The Cali76 Stacked Edition is extremely quiet by the standards of most pedals. However, while the pedal itself adds minimal additional noise, with so much compression and clean gain on tap it can quickly highlight noise induced in pickups and other effects units.

Humbucking or noise-cancelling pickups will allow you to push things further without suffering from 50Hz mains hum. Meanwhile to avoid amplifying noise created by other pedals, we recommend placing the Cali76 Stacked Edition straight after your guitar and before any other effects.

When setting the pedal for different amounts of compression in the first and second compressor stages, for optimal signal-to-noise ratio we recommend that you make sure the first compressor is working harder than the second. Setting the In control high and Thru control low means you will avoid applying lots of gain to any noise produced by the first compressor stage.

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EXAMPLE SETTINGS

Stacked compressors. *Each compressor is set up for a different task; the first gently evening out dynamics and the second clamping down and limiting peaks. A classic studio technique.*

Adjust the Thru control to your instrument and playing style. Start with the Thru control anti-clockwise and turn it clockwise until loud chords are limited causing the left VU meter to glow brightly.

Clean overdrive. *All the fun of an overdrive without the distortion! Maximum sensitivity for easy legato licks and sustain for days. Solos project through the mix with full clarity and tone.*

As you turn up the In and Thru dials, compression and sensitivity will increase, as will pickup induced noise. This must be taken into consideration, especially in a live scenario.

Always on. *Compressors can fight your dynamics - cranking up the dry knob gives you back dynamic control. Known as "parallel compression", this is an established studio recording technique that allows you to combine the tone thickening, increased sensitivity and sustain of the compressed signal with the natural dynamic expression in your playing.*

So good you won't want to switch it off!

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ABOUT ORIGIN EFFECTS

Origin Effects is the brainchild of Simon Keats, a guitarist, electronic engineer and analogue circuit designer who has worked for the likes of Vox, Focusrite and Trident Audio. Having built bespoke effects for professional musicians and producers for many years, he launched the Origin Effects brand in 2012 to bring his exceptional designs to a wider audience.

His first two pedals – the Cali76 compressor and the unique SlideRig dual-chained compressor – were soon followed by the Compact Series of compressors for guitar and bass. Widely recognised as the best pedal compressors ever made, they have found favour with guitarists and bass players like David Gilmour, Pino Palladino and Steve Lukather, as well as Grammy Award-winning producers like Paul Epworth, Ross Hogarth and Terry Britten.

In 2018, Origin started a new chapter with the launch of the RevivalDRIVE, a groundbreaking overdrive pedal that recreates the circuit topology, sound and response of a cranked non-master-volume valve amp.

Please note that Simon Keats & Origin Effects Limited are in no way affiliated with Urei or Universal Audio.

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Cali76
COMPACT DELUXE
RATIO
ATTACK
RELEASE
ORIGIN EFFECTS
ON
SER
STUDIO GRADE • CLASS A • LOW NOISE
Cali76
STACKED EDITION
ATT/REL 2
THRU
ATT/REL 1
ORIGIN EFFECTS
ON
SER
STUDIO GRADE • CLASS A • LOW NOISE
VOLUME
LOWS
MIDS/PRES
MIDS/PRES
LOWS
VOLUME
OUTPUT
BLEND
GHOST
GHOST
BLEND
OUTPUT
REVIVALDRIVE
GHOSTING OVERDRIVE
UNABRIDGED AMP TONE
ORIGIN EFFECTS
ON
SER
SlideRIG
COMPACT DELUXE MKI
STAGE 2
STAGE 1
ATT/REL
ORIGIN EFFECTS
ON
SER
STUDIO GRADE • CLASS A • LOW NOISE
Cali76
COMPACT BASS
RATIO
ATT/REL
HPF
ORIGIN EFFECTS
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SER
STUDIO GRADE • CLASS A • LOW NOISE