

Periatone

E-Lator

Vacuum Tube Effects Loop Buffer

User's Manual

Thank you for the purchase of your Ceriatone C-lator effects loop buffer!

Here, we hope to explain how best to use your new unit.

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1) About the C-lator

The release of our Overtone series of amplifiers has been overwhelmingly popular, and the support of customers such as you has instigated the release of currently 8 different versions within the series. In addition, we released the Klein-ulator to help meet the needs of players wanting an affordable, yet great-sounding solution to their effects loops. We have been pleased to provide many players access to our unique take on these legendary amplifiers.

At your request, we have added a new member to this series – the C-lator.

The C-lator is, as with our OTS amplifiers, based on the design of a certain Californian amplifier builder. Its use serves to not only allow an interface between your amplifier and effects units, but also imparts an incredible “breath” and harmonic content to your tone. Unlike our Klein-ulator, the C-lator uses a 12AX7/ECC83 vacuum tube for this purpose.

While our work could not have been possible without the gracious information shared over the last decade in the public domain, we hope you appreciate our modifications, component selection, and construction techniques. Most of all, we hope the C-lator becomes an integral part of your tone equation to exhilarate your playing and music.

Rock on!

- Nik Azam

2) Connecting the C-lator to your amplifier



On the rear panel of the C-lator, you can see six items of interest.

From left to right:

- 1) 0.5A fast-acting fuse
- 2) IEC (C14) panel-mounted power cable male inlet
- 3) **OUT** (1/4" jack)
- 4) **RTN** (1/4" jack)
- 5) **SND** (1/4" jack)
- 6) **IN** (1/4" jack)

First, connect a suitable power cable from the C-lator's cable inlet to your wall power receptacle.

Second, connect a cable from your amplifier's EFFECT LOOP SEND / PREAMP OUT to the C-lator's **IN** jack.

Third, connect a cable from the C-lator's **SND** to your effect unit's INPUT.

Fourth, connect a cable from your effect unit's OUTPUT to the C-lator's **RTN**.

Finally, connect a cable from the C-lator's **OUT** to your amplifier's EFFECTS LOOP RETURN / POWERAMP IN.

NOTE – you can run the C-lator without any effects and still get its nice tone-shaping impact. Just don't plug a cable into either SND or RTN jacks on the C-lator, and follow the instructions above. The jacks and wiring method employed will internally switch the two jacks together if nothing is plugged into them.

3) Controls



On the front panel of the C-lator, you can see eight items of interest.

From left to right:

- 1) **DRIVE** control
- 2) **BRIGHT** two-way toggle switch
- 3) **IN** control
- 4) **OUT** control
- 5) **BRIGHT** two-way toggle switch
- 6) **INDICATOR LED**
- 7) **OPERATE / STANDBY** two-way toggle switch
- 8) **ON / OFF** two-way toggle switch

DRIVE adjusts the volume sent from your amplifier's preamp to your effects. With DRIVE turned all the way up, the control is at unity gain. In other words, the volume sent to your effects is exactly the same as the volume coming out of your preamp. In many cases, this is too high and will cause your effects to overload. Try setting DRIVE around 12:00 and experiment from there for your preferred results.

BRIGHT is a high-frequency boost that can be used to add sparkle to your tone coming from the preamp, or compensate for an overly dark amplifier or long, low quality interconnect cables. This high frequency boost is more prominent as DRIVE is turned down. With the toggle switch in the UP position, BRIGHT is on. In the DOWN position, BRIGHT is off.

IN adjusts the volume sent from your effects coming back into the C-lator. Unless your effect unit produces an extremely hot signal, set this control at maximum (approximately 5:00).

OUT is a tube gain stage that is used to make up any lost volume from turning down the volume at DRIVE or IN. It "recovers" volume, and is the global volume control for the signal coming out of the C-lator. With the previous settings, try setting OUT at 12:00 and experiment from there for your preferred results.

You can also turn this control up to overdrive your amp's phase inverter for pleasing harmonic grit. Conversely, you can use the OUT control as an additional master volume control to tame an exceptionally loud amplifier.

BRIGHT is a high-frequency boost that can be used to add sparkle to your tone coming from your effects and C-lator's output. This high frequency boost is more prominent as OUT is turned down. With the toggle switch in the UP position, BRIGHT is on. In the DOWN position, BRIGHT is off.

INDICATOR will illuminate when the C-lator is powered by turning the ON / OFF toggle switch to the ON position. If INDICATOR does not turn on, check your power cable connections, and then the 0.5A fast-acting fuse on the rear of the unit.

OPERATE / STANDBY applies high voltage to the 12AX7 anodes during use of the C-lator. To ensure long tube life, first power the unit on with the toggle switch in STANDBY position for approximately 30 seconds. Then switch to OPERATE to use the C-lator. With the toggle switch in the UP position, the C-lator is in OPERATE mode. In the DOWN position, the C-lator is in STANDBY mode.

ON / OFF powers the C-lator on and off. With the toggle switch in the UP position, the C-lator is ON. In the DOWN position, the C-lator is OFF.

4) Frequently Asked Questions

How do I hook up this thing?

- See Section 2, beginning on page 3.

My rack-mounted effect unit seems to work okay without a buffer, but my pedals sound bad without one. What's the deal?

- Generally, what you're hearing is a significant mismatching of impedances, and/or an overloading of the effect unit itself. Most rack-mount units have different input impedance than pedals, and thus can *sometimes* function fine without a buffer before them. In addition, *some* of these rack-mounted effects can pad the volume they receive, preventing it from overloading. Pedals do not have proper input impedance or padding ability, and therefore do not play nicely. For best results, the C-lator should be used in a passive, serial effects loop when any effects (rack mounted or pedal) are desired. It prevents impedance mismatching, as well as provides the ability to pad down the volume sent to the effects units hence preventing any overloading.

Can I substitute different tube types for the 12AX7/ECC83?

- Although you can try 12AT7s, 12AU7s, 5751s without any harm, the design is optimized for 12AX7s, and are therefore the only recommended tube.

What settings do you recommend?

- Try DRIVE at 12:00, IN at maximum, and OUT at 12:00. Usually, set the DRIVE as high as you can without overloading your effects, and set OUT to compensate for lost volume or add additional gain.

My tone sounds slightly darker with the C-lator. What's the deal?

- Whether it was intentional or not is unknown, but the original design the C-lator is based on is prized for the smoothness it imparts to one's tone. While not dramatic, it can definitely be useful in amplifiers with an extended treble response. If you want to exaggerate this effect, use a long (ex – 20') cable from the PREAMP OUT jack of your amplifier into the C-lator IN jack.

When I plug in my effects unit, my tone becomes strange and distorted. What's the deal?

- You are likely overloading your effects unit. Try turning the DRIVE control down.

When I use the C-lator, my amp has more gain than with nothing in the effects loop. What's the deal?

- You likely have an output from the C-lator that is higher than the original signal leaving your preamp. You can try turning down the OUT control. Note, some players prefer a slightly hot signal leaving the C-lator to add to drive the amplifier's phase inverter and add harmonic content.