CLA EchoSphere

User Guide

EchoSphere

EchoSphere adds space to a mix, brings life to instruments, and increases overall depth. It takes a classic slap delay, adds a plate reverb, and creates a sound that's fuller and richer. Processing can be parallel or serial for greater flexibility. A simple, versatile modulator helps an instrument hold its own in a mix and gives you tools to quickly create spatial effects.

EchoSphere was developed in collaboration with veteran music mixer Chris Lord-Alge (U2, Nine Inch Nails, Bon Jovi, Santana, and more), who long ago discovered that chaining a delay with just the right reverb and then modulating the signal results in tracks that are rich and exciting.

At the heart of EchoSphere is Chris's legendary rock sound. It was the starting point of the plugin's design, not a tweak. Even when all the faders are set to zero, his sound is working for you.

Quick Start

Set the input level

Use the input fader to adjust the gain. The LED above the fader gives you a good indication of how hard you are hitting the plugin. Green (and even the occasional red) peaks indicate a healthy level. Steady red is too hot.

Adjust the Slap

Touch the Slap fader to focus its control panel. If you're familiar with slap delays, you won't find any surprises here. Adjust the delay time based on tape speed or time. Set how you want EchoSphere to sync with the DAW and adjust the feedback. High-pass and Low-pass filters help to remove noise.

Route the signal

The Slap output can be routed to the Plate, to the plugin output, or to both. This determines if the Slap and the Plate are processed in parallel ("Plate" routing off, "Output" on), or in series ("Plate" routing on, "Output" off).

Adjust the Plate

The Plate has three controls: Pre-delay, Reverb time, and low- and high-frequency damping (RT Low and RT High).

Modulate

Modulation is the EchoSphere secret weapon. Even tracks that you don't want to *sound* modulated will sound *better* with a touch of modulation. The single Modulate knob controls both depth and speed. Each of the four pie-shaped sections represents a fixed modulation depth. Turn the knob within each section to adjust modulation speed.

Audition and Adjust

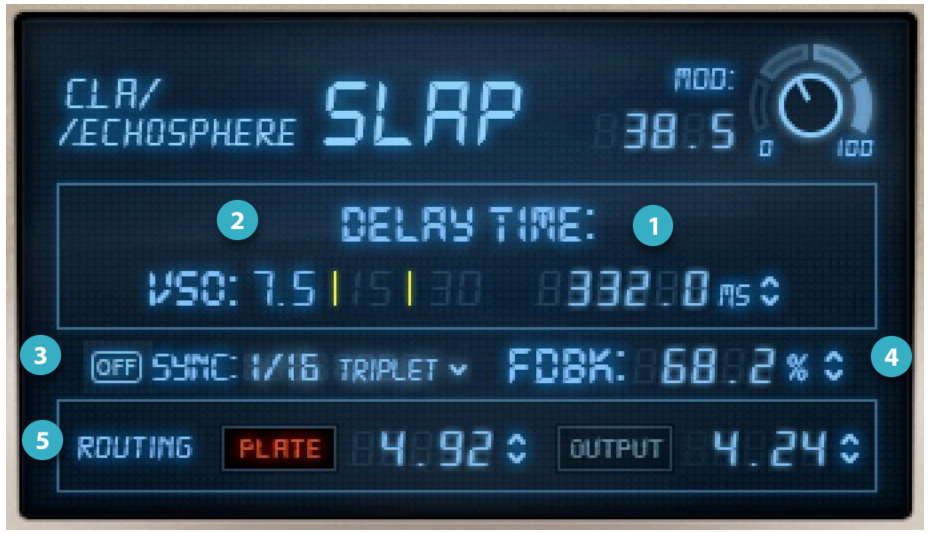
Both effects have locking mutes and solos. The mute status is shown in the Mute panel on the side. If Slap is muted when it is routed only to Plate, there will be no wet signal. The sends to the Plate and to the Output are adjusted with the up/down arrows. The Plate output is sent directly to the wet/dry mixer. The large faders set the output level of each processor. Use the Wet/Dry control to set how much of the effect you want to include in the plugin output.

Controls

1. Input fader with level indicator
2. Mutes panel
3. Active control panel select
4. Slap output fader
5. Plate output fader
6. Solo/Mute for each FX
7. Hi-pass and Lo-pass filters for FX outputs
8. Fader value indicator
   Filter value is shown when HP or LP is touched.
9. Slap or Plate control panel
   Slap and Plate have different control panels.
   The Slap control panel is shown here.
10. Modulation control
11. Routing panel (Slap only)
12. Wet/Dry mix
13. Output fader

Slap Delay

A Slap delay is similar to a short reverb, but it doesn't have a continuous release. A real-world example is shouting in an alleyway between two buildings and hearing one pronounced echo.



1. DELAY TIME sets the delay (in ms) before the onset of the slap. Range: 0 ms to 5000 ms
2. VSO simulates the delay encountered when tape passes between the record and play heads of a recorder. Each tape speed has a corresponding delay value:

7.5 ips	332 ms
15 ips	166 ms
30 ips	83 ms

3. SYNC sets the delay time value for each Tap. EchoSphere is always synced with the host. Use the drop-down menu to set musical subdivision. Turn Sync off to enter delay values that are independent of the host.

When you select a tape speed (VSO), a corresponding EQ curve is loaded in the background. This pairing of delay and EQ is part of what creates the unique CLA sound. Adjust the delay manually or turn on Sync to assign musical subdivisions of the host tempo. The EQ curve will not change until a new tape speed is selected.

4. FEEDBACK controls the amount of the tap signal that is returned to the input. The result is a repeating and diminishing echo.
5. ROUTING sets the signal path of the Slap output.

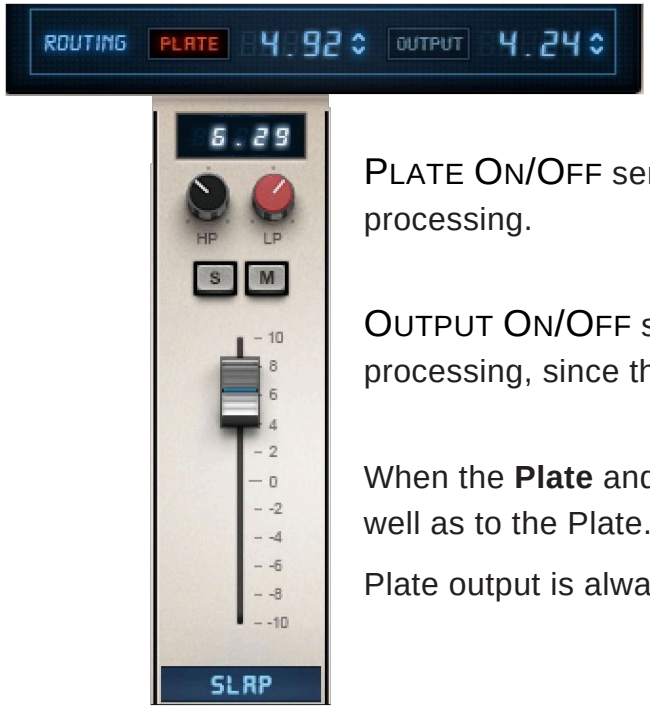


PLATE ON/OFF sends the Slap output signal to the input of the Plate reverb. This is serial processing.

OUTPUT ON/OFF sends the Slap signal directly to the plugin wet/dry mixer. This is parallel processing, since the input of the Plate processor is the plugin input, not the Slap.

When the **Plate** and **Output** switches are both on, Slap output is sent to the plugin output, as well as to the Plate.

Plate output is always sent to the plugin output. It cannot be sent back to the Slap.

The LARGE FADER controls Slap output level.

Plate Reverb

Plate reverbs are famous for their smooth reverb tails. They have long been used to add color and brightness to a natural reverb, or in conjunction with other reverbs. Higher frequencies tend to move forward, in front of the reverb tail, while longer frequencies tend to linger.

1. PRE-DELAY refers to the time offset between the original sound and the onset of the reverb tail. Lengthening pre-delay time will retard the beginning of the reverb tail, thus providing a bit more space for a voice or an instrument. Pre-delay times set too long can result in an unnatural sound.
   Range 0 ms to 1000 ms

2. REVERB TIME (RT) is the time it takes for the sound pressure to decrease by 60 dB, which is effectively the end of the reverb tail.
   Range: 0.1 second to 20.0 seconds

3. RT LOW (LOW-FREQUENCY DAMPING) controls the decay time of low frequencies in the reverb, relative to the Reverb Time value. Higher settings yield spaces that are warmer and roomier, while lower RT Low settings tend to result in spaces that are more articulate sounding. Range: x0.25, x1, x4

4 RT HIGH (HIGH-FREQUENCY DAMPING) controls the decay time of the high frequencies in the reverb, relative to the Decay Time value. The higher the setting, the brighter the sound of the Reverb tail. Range: x0.25, x1, x4

Modulator

The modulator adds motion to the output of the plugin. Used in a subtle manner, it gently adds width to a sound. At more aggressive settings, it creates a distinct warbling effect. The modulation knob controls the two essential aspects of modulation: rate and depth.

RATE is the *speed* at which the modulator oscillates: the amount of time the effect takes to complete a cycle.

DEPTH is the *amount* of modulation. In other words, depth is how much the signal moves or changes.

A single rotary control sets modulation rate and depth for a processor. The outer band is divided into four sections. As you turn the control clockwise, each section yields a greater modulation *depth.* Modulation *rate* runs from 0–100 within each section. For example, setting the control marker near the top of the first section will result in low modulation depth with a high rate. When the control marker is in the low part of the highest section, the depth will be high and the rate low.

MODULATOR DISPLAY SETTING

1–25	Low depth, rate: 1–100	51–75	High-medium depth, rate: 1–100
26–50	Low-medium depth, rate: 1–100	76–100	High depth, rate: 1–100

Modulating the taps produces variation in the delay times, which changes the pitch of each tap.

Output Section

WET/DRY MIX CONTROL

Controls the mix between the processed path and the wet path. To help achieve Chris's signature sound, the wet signal is internally down-sampled to 44.1 Hz for processing and then up-sampled to the session sample rate.

The position of the Wet/Dry control is shown in the value box.

OUTPUT METERS

Range: -infinity to +12 dB

The LED above the fader indicates output level. If the light is continuously red, reduce and output level. If the output level remains very high, check that the input level is not too high and that the Slap and Plate processors are not causing large gain increases.

WaveSystem Toolbar

Use the bar at the top of the plugin to save and load presets, compare settings, undo and redo steps, and resize the plugin. To learn more, click the icon at the upper-right corner of the window and open the WaveSystem Guide.