



X-Echo User Guide

Introduction

About SSL X-Echo

SSL Native X-Echo is a vintage tape echo plug-in, inspired by the sound of definitive early tape delay hardware of the 1960s, while introducing SSL's signature analogue saturation and warmth.

Aside from sounding great from the get-go, it is complimented by numerous other practical and creative features, such as built-in de-essing, waveform visualisation, and a brand-new reverb design.



Key Features

- Inspired by early hardware delay units from the 1960s such as the Echoplex tape echo.
- Combine tape-style analogue degradation with classic SSL-style distortion characteristics using the 'Wow & Flutter' and 'Saturation' controls.

- Models classic characteristics of hardware tape echo devices, including the looping EQ, soft clipping, gentle tape hiss and self-oscillation when raising the feedback above 100%.
- WOW AND FLUTTER emulates the effect of mechanical components like the capstan and pinch wheel, as well as the friction of the tape itself.
- Use FREEZE and KILL to build risers and drops in recordings and live performances.
- Bespoke one-knob DIFFUSION control, featuring a brand new reverb design.
- Built-in DE-ESSER for controlling the sibilant frequencies that tape echoes often accentuate.
- Designed to sound great from instantiation – even before you start tweaking it.
- Unique interface and waveform visualisation for seeing how the tape heads interact.
- Sync your delay to note values with a single click.
- 4 switch-able tape heads for adding variation.
- Stereoises mono => stereo signals using a phase shifting technique.
- Built on the SSL Plug-in Engine.
- SSL's cross-platform preset management and A/B-ing system.
- Built-in UNDO/REDO support.

Installation

You can download installers for a plug-in from the [website's Download page](#), or by visiting a plug-in product page via the [Web Store](#).

All SSL plug-ins are supplied in VST, VST3, AU (macOS only) and AAX (Pro Tools) formats.

The installers provided (macOS Intel .dmg and Windows .exe) copy the plug-in binaries to the common VST, VST3, AU and AAX directories. After this, the host DAW should recognise the plug-in automatically in most cases.

Simply run the installer and you should be good to go. You can find more information about how to authorise your plug-ins below.

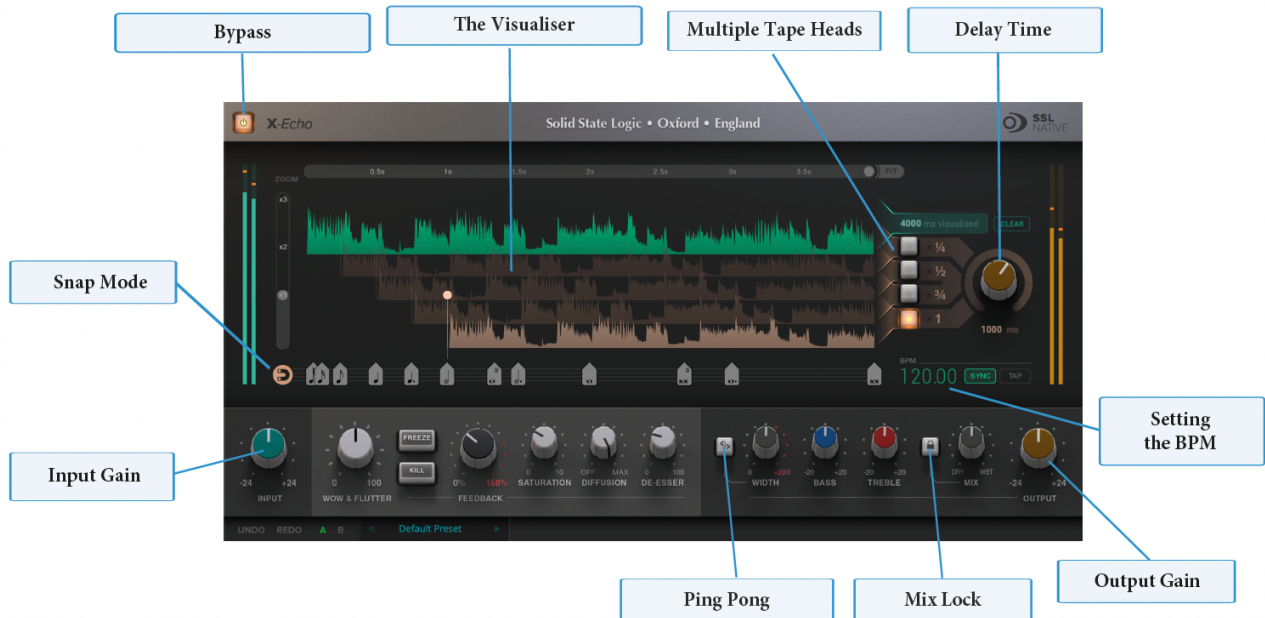
Licensing

Visit the [online plug-ins FAQ](#) for guidance in authorising your SSL plug-in.

Using SSL Native X-Echo

Overview

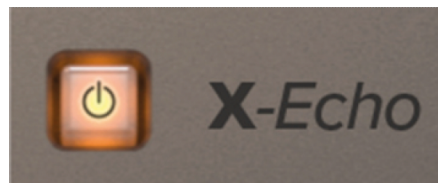
The diagram below introduces X-Echo's features which are described in full in the following sections.



Interface Overview

The basic interface techniques for the X-Echo are largely identical to those for the Channel Strip.

Plug-in Bypass



The **power** switch located above the **Input** section provides an internal plug-in bypass. This allows for smoother In/Out comparisons by avoiding the latency issues associated with the host application's Bypass function. The button must be 'lit' for the plug-in to be in circuit.

Automation

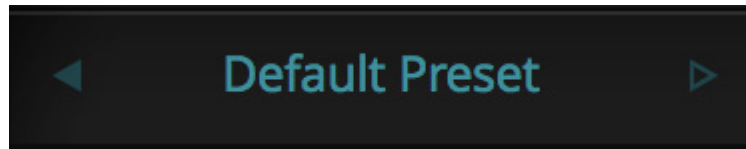
Automation support for Drumstrip is the same as for the Channel Strip.

Presets

Factory presets are included in the plug-in installation, installed in the following locations:

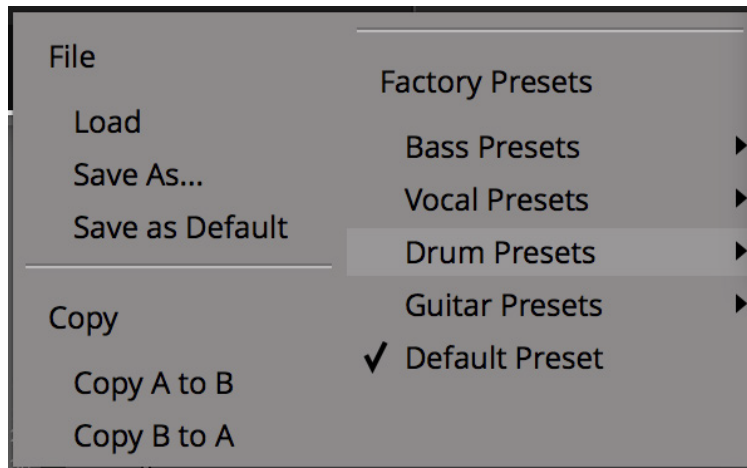
Mac: Library/Application Support/Solid State Logic/SSLNative/Presets/Drumstrip

Windows 64-bit: C:\ProgramData\Solid State Logic\SSL Native\Presets\Drumstrip



Switching between presets can be achieved by clicking the left/right arrows in the preset management section of the plug-in GUI, and by clicking on the preset name which will open the preset management display.

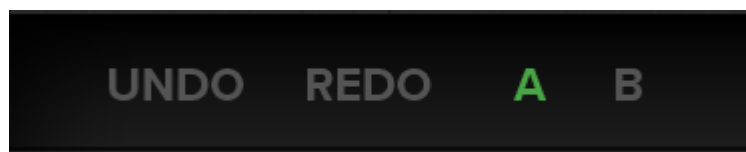
Preset Management Display



There are a number of options in the Preset Management Display:

- **Load** allows loading of presets not stored in the locations described above.
- **Save As...** allows for storage of user presets.
- **Save as Default** assigns the current plug-in settings to the Default Preset.
- **Copy A to B** and **Copy B to A** assigns the plug-in settings of one comparison setting to the other.

A-B Comparisons



The **A B** buttons at the base of the screen allows you to load two independent settings and compare them quickly. When the plug-in is opened, setting **A** is selected by default. Clicking the **A** or **B** button will switch between setting **A** and setting **B**.

UNDO and **REDO** functions allow undo and redo of changes made to the plug-in parameters.

X-Echo Controls

Input Gain

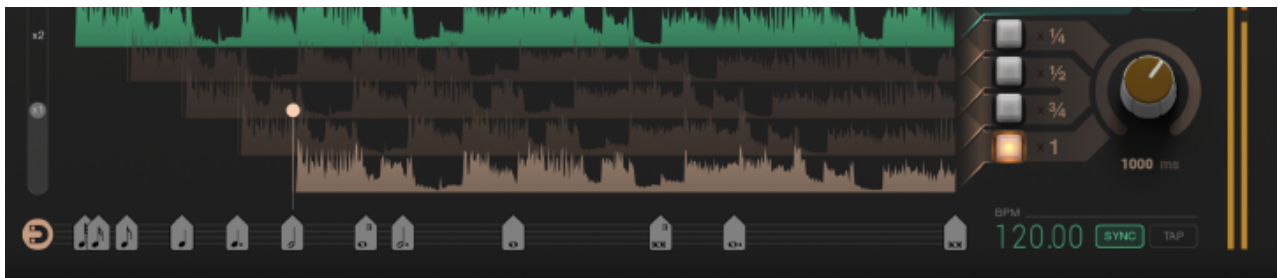
Applies a gain to the input signal.

The Visualiser

The visualiser captures up to 4s of the input signal, so that you can see how the waveforms overlap and interact. This is useful for transient material such as drums, and seeing how the delayed signals (highlighted in orange) interacts with the original signal (highlighted in green).

You can zoom in and out of the visualiser using the controls above and to the left of the graph.

Press the FIT button to fit the delay time to the window.



To capture signal in the visualiser, move your DAW playhead to a bit of representative audio, and press play. The visualiser will automatically capture 4s of the input signal. To clear the captured signal, press CLEAR.

Setting The Delay Time

The overall delay of the first tape head is controlled by either 1) dragging filled circular puck in the visualiser or 2) using the tape speed knob on the right. Underneath the speed knob, you can see the delay time (in ms) between each repeat. Double-click to enter a value.

Snap Mode

When the plug-in is in SNAP mode (the magnet symbol), the stave beneath the visualiser displays note values. Click these note values to quickly set the delay time to a time division – for example, a crotchet, or dotted quaver.

Dragging the puck or tape speed knob will snap to note values.

Click the SNAP symbol to toggle it off. When SNAP is off, you can change the tape speed freely, without it snapping to beat values.

Setting The BPM

When sync is enabled, the BPM of X-Echo follows your DAW.

When sync is disabled, the BPM of X-Echo can be configured freely, for standalone use. Double click the BPM value to edit it.

Clicking the TAP button allows you to tap a desired tempo. Tapping a tempo automatically turns off sync.

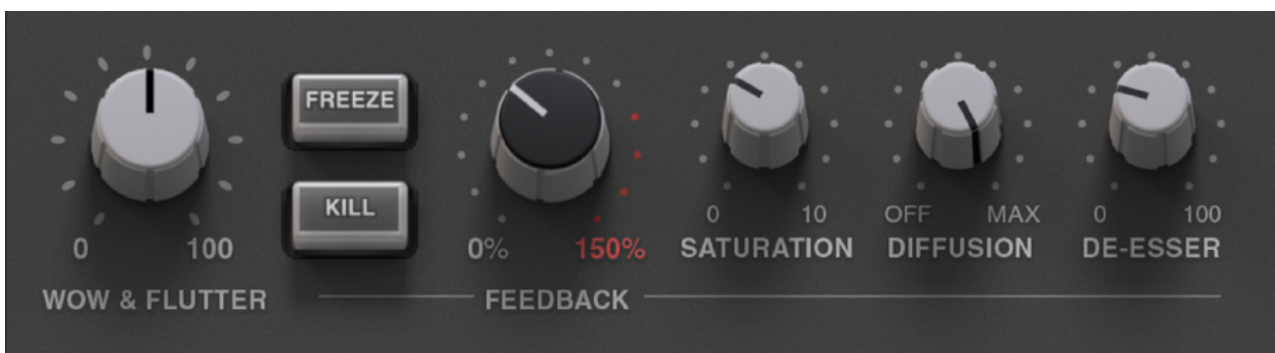
Multiple Tape Heads

There are up to 4 tape heads that can be switched into the signal path, for added variation. Just like a real tape machine, these tape heads exist at intervals of the main tape head – $\frac{3}{4}$, $\frac{1}{2}$ and $\frac{1}{4}$.

Wow and Flutter

Introduces slow (WOW) and fast (FLUTTER) pitch variations.

This emulates the different mechanical components of a tape machine – including the capstan and pinch wheel, as well as the friction of the tape itself.



Freeze

Freezes the contents of the tape loop, muting the input and causing the signal to keep repeating and slowly degrading.

Kill

Mutes the input to the tape machine and allows the tail to die off in a musical way.

Feedback

Adjust the number of repeats emulated by the tape machine. Feedback values greater than 100% will cause self-oscillation –WARNING, this will explode if your delay time is very short! – allowing for the generation of crazy sounds, even without any input signal..

Saturation

Introduces analogue saturation characteristics such as soft clipping that is cumulative on multiple repeats.

Diffusion

A brand-new reverb design, that blends through different room types and sizes.

De-Esser

A single-knob de-esser that applies cumulatively to repeats.

Use this to soften the sibilant frequencies that tape machines commonly accentuate.

Ping Pong

Switches the tape delay into a 'true ping pong' mode.

The initial repeat will be hard-panned left, and subsequent repeats will alternate between being hard-panned right, and hard-panned left.

Stereo inputs are summed to mono.



Width

Mid-side processor on the output.

This goes from mono (fully counter-clockwise) to stereo (in the centre) to super wide (fully clockwise).

Bass

Boosts or cuts the bass or frequencies in the signal.

Treble

Boosts or cuts the bass or frequencies in the signal.

Mix Lock

Locks the mix control, so that when changing between presets, the mix control remains fixed.

Mix (Wet/Dry)

Blends the unprocessed signal with the processed signal. Use this control to dial back the effect of the plug-in.

Output Gain

Applies a gain to the input signal.

