SSL USER GUIDE



SSL Native X-Echo

Vintage tape echo inspired by the sound of definitive early tape delay hardware of the 1960s

Solid State Logic





What is SSL Native 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.

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.

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.

Capturing signal

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.

2 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.

3 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.

4 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 $\frac{1}{4}$.





BYPASS

Bypasses all plug-in processing.

INPUT GAIN

Applies a gain to the input signal.

3 WOW & 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.

4 FREEZE

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

5 KILL

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



6 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

8 DIFFUSION

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

9 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.

11 WIDTH

Mid-side processor on the output.

This goes from mono (fully counterclockwise) to stereo (in the center) to super wide (fully clockwise).

12 BASS

Boosts or cuts the bass or frequencies in the signal.

13 TREBLE

Boosts or cuts the bass or frequencies in the signal.



10 MIX LOCK

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

1 MIX (DRY/WET)

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.

X-Echo **Solid State Logic** O X F O R D • E N G L A N D

International HQ: Begbroke, Oxford, OX5 1RU, England

Tel +44 (0)1865 842300 · sales@solidstatelogic.com · www.solidstatelogic.com

Los Angeles: Tel +1 (818) 643 7040 · lasales@solidstatelogic.com Paris: Tel +33 (0)1 48 67 84 85 · frsales@solidstatelogic.com New York: Tel +1 (212) 315 1111 · nysales@solidstatelogic.com

Tokyo: Tel +81 (0)3 5474 1144 · jpsales@solid-state-logic.co.jp



© Solid State Logic. All rights reserved under International and Pan-American Copyright Conventions. SSL® and Solid State Logic® are registered trademarks of Solid State Logic. No part of this publication may be reproduced in any form or by any means, whether mechanical or electronic, without the written permission of Solid State Logic, Oxford, OX5 1RU, England. As research and development is a continual process, Solid State Logic reserves the right to change the features and specifications described herein without notice or obligation. Solid State Logic compate he held responsible for any loss or damage arising directly or indirectly cannot be held responsible for any loss or damage arising directly or indirectly from any error or omission in this manual. E&OE.