

DelayU-42

Vintage-Inspired Digital Delay Processor

Product Manual & Guide

Software Version: v1.5

Publisher: MKS Mixing

Web: mksmixing.com

Support: plugin-support@mksmixing.com

1. Introduction

Welcome to the DelayU-42 User Manual.

DelayU-42 is a vintage-inspired delay plugin featuring authentic analog feedback saturation and dual-stage opto-limiting for dynamic response.

Whether you're looking for clean digital delays or warm, saturated echoes, DelayU-42 provides an intuitive and responsive musical experience.

For contact, please mail us at plugin-support@mksmixing.com

2. Features

- * Dual-Stage Opto-Limiter: Accurate modeling of vintage hardware dynamics in the feedback path.
- * Analog Saturation: Drive the input while the Mix knob is set to 1 or higher (setting it to 0 completely bypasses processing) and feedback at 0 for authentic musical distortion without harsh digital clipping.
- * Host Sync & Free Timing: Millisecond precision up to 4800ms or tempo-synced divisions.
- * Direct Value Entry: Double-clicking the LCD display in DLY mode opens a text input field, allowing precise manual entry of delay times in milliseconds instead of using the +/- buttons for 1ms adjustments.

3. Controls

POWER: Enables or disables the plugin processing. When bypassed, audio passes through unaffected.

INPUT: Drives the signal into the delay circuit. Higher levels induce more saturation and trigger the opto-limiter sooner.

OUTPUT: Master output level adjustment.

(Tip: Push the Input knob and reduce the output volume accordingly to get more saturated delay throws!)

MIX: The Mix knob blends the delayed echoes into your dry signal, and controls the amount of limiter and saturation character present in the output. Setting the Mix knob anywhere from 1% to 100% (values 0.1 to 10.0) introduces the analog warmth, limiting, and saturation. Setting the Mix knob to 0% (value 0.0) completely bypasses the analog processing path for a clean, unaffected dry signal.

(Tip: Push the Input knob, adjust the Output volume to taste, set Feedback to 0, DLY to 0ms, and Mix anywhere from 50% to 100% to introduce the amazing limiting and saturating character the hardware unit is known for!)

FEEDBACK: Controls the amount of signal fed back into the delay line. Higher values create longer trails.

TIMING MODE (DLY / CLK): Switches between raw millisecond delay (DLY) or tempo-synced subdivisions (CLK).

TIMING DLY/SYNC: Sets the delay time. In DLY mode, adjusts in milliseconds (0ms to 4800ms). In CLK mode, snaps to musical subdivisions based on the host tempo.

4. Headroom Meter

The Headroom Meter visualizes the internal clipping and limiter response.

- The lights illuminate dynamically to show you how close the signal is to clipping (0 dBFS).
- The blue light indicates heavy saturation and limiting.

■ 5. Version Tracking

v1.0 (Initial Release): Initial version with intact UI features.

v1.1.1: Removed Auto-Gain feature. Fixed PDF vulnerability. Finalized the UI.

v1.2:

- * Refactored user interface rendering pipeline to optimize performance and reduce CPU overhead.
- * Reworked the window scaling mechanics for improved resizing stability and smoother drag transitions.
- * Redesigned the Headroom Meter with updated color indicators and shape.
- * Implemented various backend stability improvements and parameter synchronization fixes.

v1.5:

- * Improved backend stability to prevent crashes across different channel layouts and extreme settings.
- * Added click-free bypass and a full DSP state reset for cleaner transport and looping behavior.
- * Optimized backend performance and audio-thread reliability under heavy automation.