A/DA STD-1

Plugin Manual

Physically Modelled Bucket Brigade Delay Unit Developed under license by Brainworx Audio and Distributed by Plugin Alliance.

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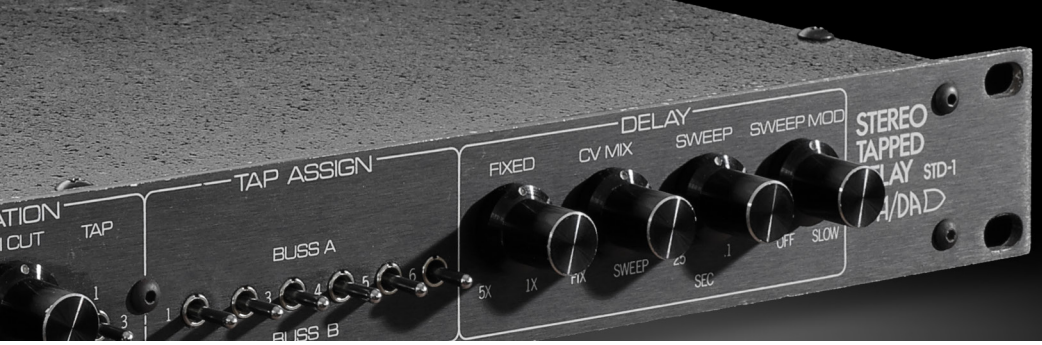

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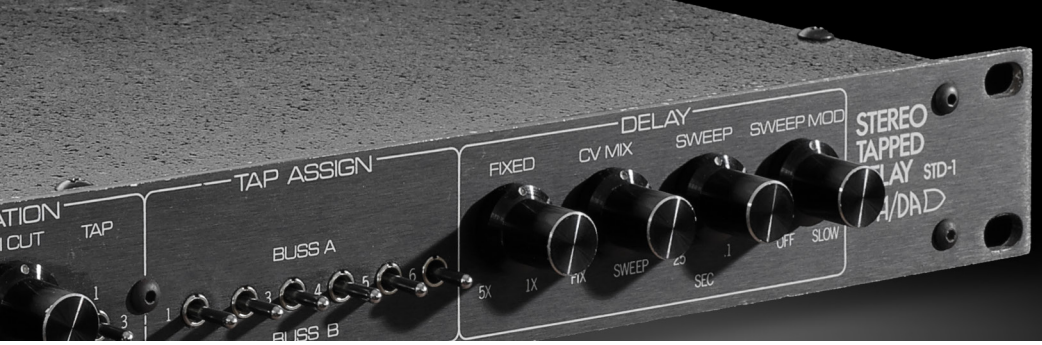
Introduction

A standard delay unit is often expected to be capable of producing long tails, ping-pong effects, and maybe even stutter repeats that come from the need to add time-based flair to your sounds. But while many units can produce longer echoes to some satisfying degree, they often lack the granular flexibility of time settings to practically catch and affect sounds as they manifest in the first few milliseconds of their lifespan. What they fundamentally miss is one of the most basic needs behind adding time to a signal–cleanly duplicate a sound to the ends of adding stereo width, tone and timbre in a sonically constructive way. If you're one who is apt to artificially widening an instrument by duplicating it onto two different tracks and offsetting the delay times, or have ever wished your flange unit could add body to the sound instead of removing it, do read on.

By using a specific set of inharmonic delay times, coupled with independent stereo output, the STD-1 precisely delivers the lush bloom of body that your sounds have been looking for. Far from the standard delay effect, the STD-1 excels at producing slap-back echoes and short reverbs that are timed to perfectly allow each tap to overlap the previous decaying iteration, producing what so many throughout the years have called a '3-D layering effect'. Each of six taps can be assigned independently to a different stereo output, and adjusted to be delayed by a pre-set range of time in ms.

Combined with a built-in feedback module, this alone produces some of the most inconceivably wide and wonderful textures a sound can hope for, as well as any variety of interesting and exciting cacophonous tones. What takes the STD-1 to the edge is the inclusion of a powerful internal LFO system that can produce sounds as standard as a Rhodes through a rotary speaker, or as untamed as bass into psychedelic alien speak. Blend it all together and independently dial each stereo mix knob to taste, and you've got one potent effect that can beautify and broaden vocals and guitars, create lustworthy low-end in brass and pads, and devastate the decay of a tympani to a wonderfully warbling ring in ways only possible with something that sounds as risky and dangerous as the STD-1.



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The Basics

The ADA STD-1 is more a modulation effect than a plain delay. As it's built upon an analog capacitor bucket-brigade, it features a rather short delay time which can be modulated by a LFO to achieve chorus or flangerish effects. What makes this delay so special, is its complex routing possibilities of different delay stages. There are six taps from where the delayed signal is routed to either bus A or bus B (Left or Right) or none of those. Furthermore one of the taps 1, 3 or 6 must be selected to feed the feedback path. This routing scheme also implies an upmixing effect, nevertheless we can handle stereo signals by downmixing the signal before feeding the delay line.

The maximum delay time is 55.5 ms at tap 6 and fractions of that on the other taps (on tap 5 it's 46.5ms, tap 4 is 29ms down to tap 1 with 6.5 ms).

The delay time, and therefore the delay at each tap, can be altered via the fixed delay pot and additionally tuned dynamically with an adjustable sweep rate of the LFO. On top of that, the sweep rate can be modulated by a higher frequency oscillator to even more expand the range of interesting effects.

Delay times per tap

Tap 1: 1.3ms - 6.5 ms

Tap 2: 2.2 - 11

Tap 3: 4.6 - 20

Tap 4: 5.8 - 29

Tap 5: 8.3 - 46.5

Tap 6: 11.1 - 55.5

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Input Section

1 Headroom

Indicates the signal level at the STD-1's input. This includes the signal that is fed back from the Regeneration section.

2 Input Mono/Stereo

A stereo signal will be summed to mono if the switch is set to the MONO position. This does not affect the signal that is fed back from the Taps.

3 Input Level

Adjusts the amount of gain or attenuation applied to the input signal, from -28 dB to +18 dB.

4 In/Out

Engages or bypass the effect section of the STD-1. The LED indicates whether the effect is engaged.

Output Section

5 Output Mix L

This is the mix control for the left channel in a stereo configuration. At fully counter-clockwise, you will hear only the dry signal. At fully clockwise, only the affected signal will be heard. NOTE: no signal will be heard if the left channel is not assigned to a delay buss.

6 Output Mix R

This is the mix control for the right channel in a stereo configuration. At fully counter-clockwise, you will hear only the dry signal. At fully clockwise, only the affected signal will be heard. NOTE: no signal will be heard if the right channel is not assigned to a delay buss.

7 Output Level

Adjusts the effect output signal -28 dB to +18 dB.

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Regeneration Section

1 Regeneration In/Out

When this control is enabled, the signal from one of the six taps is fed back to the input.

2 Regeneration Level

Controls the amount of the signal fed back to the input.

3 Regeneration Hi Cut

Reduces the high frequency content on the fed back signal. Adjustable from 10 kHz to 900 Hz.

4 Regeneration Tap

Selects Tap 1, 3, 6 as a source for the regeneration signal.

Tap Assign Section

5 Tap Assign

Determines whether each tap is routed to the left buss (up), routed to the right buss (down), or disabled (center). The delay times of the taps increase incrementally from Tap 1 to 6. Tap 1 has the shortest delay, ranging from 1.3 to 6.5 ms, and Tap 6 has the longest delay, ranging from 11.1 to 55.5 ms. In Mono instances of the STD-1, the center position for each Tap Assign switch is eliminated, providing either active (up) or inactive (down) states.

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Delay Section

1 Delay Fixed

Sets the initial static delay time for the taps. Turn it all the way to the left to get the longest possible delay time from each tap. Turn it all the way to the right for the shortest delay times.

2 Delay Mix

Crossfades between the Fixed delay signal and the oscillating “Sweep” signal (see below).

3 Delay Sweep

Sets the oscillation speed of the Sweep signal, for automatically modulated echo times. Slow speeds can be used for chorus or flange effects, while faster speeds can be used for vibrato or Leslie effects.

4 Delay Sweep Mod

When turned up, the Sweep Mod modulates or superimposes the sweep signal with an oscillator of a slightly higher frequency, which can achieve “pseudo-random” sweeps, resulting in an extremely thick chorus. When turned all the way to the left, the Delay Sweep Mod is disabled.

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Top Toolbar

1 Undo / Redo

You can undo and redo changes you made to the controls of the STD-1 plugin at any time. The Undo / Redo will work for as many as 32 steps. This makes experimenting and tweaking knobs easy. If you don´t like what you did... just undo it.

2 Settings (A/B/C/D)

The STD-1 amp plugin offers four internal settings (A/B/C/D) which will be stored with every preset. So, one preset can contain up to four amp and effects settings. You may use similar amp settings with more or less delay, different delay times, etc., to quickly switch between different sounds, or you can switch from clean to crunch to lead within one setup / preset. The Settings can be automated in your DAW. This way it´s possible to switch from a dry rhythm sound to a lead sound with tons of delay, for example.

3 Copy / Paste

To set up variations of similar sounds you don´t have to dial in all the parameters several times. Let´s say you like your setting A and want to use the same sound, just without delay, as setting B.

- Simply press Copy while you are in setting A.
- Switch to setting B by pressing 'B' in the settings section.
- Press Paste, now setting B is identical to setting A.
- Switch off Tap 2. Done.

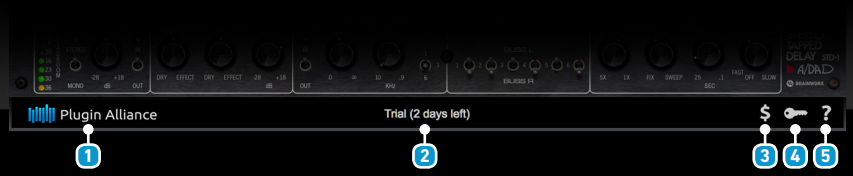
Now you can switch between A & B and play the same sound with or without delay.

4 Regeneration Limiter

Applies a soft clip limiter to the Regeneration signal.

5 Noise

When turned up, this control applies a simulated noise floor to match that of the original hardware unit. It ranges from -∞ to -60 dB.



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Bottom Toolbar

1 PA Logo

Clicking the Plugin Alliance logo takes you to the Plugin Alliance website via your web browser, that´s if your computer is online.

2 License Type

The toolbar displays information about the type of license you're running: Trial licenses will be displayed along with the number of days until expiration; there is no note for full licenses as these are unlimited.

3 $ (Icon)

If you are using a demo / trial version of our products, you can always click this icon to open a browser that redirects you to the respective product page in the Plugin Alliance store. This is where you can easily purchase a product without having to look it up on our website.

4 Key (Icon)

Clicking on the key icon brings up the activation dialog, allowing you to manually reauthorize a device in the event of a license upgrade or addition. You can also use this feature to activate additional computers or USB ash drives.

5 ? (Icon)

Clicking the ? icon opens up a context menu that links to the product manual PDF, as well as other helpful links, e.g. to check for product updates online. You must have a PDF reader installed on your computer to be able to read the manual.

System Requirements & FAQ (Links)

For latest System Requirements & Supported Platforms

https://www.plugin-alliance.com/en/systemrequirements.html

Particular details for your product

https://www.plugin-alliance.com/en/products.html

Installation, Activation, Authorisation and FAQ´s

https://www.plugin-alliance.com/en/support.html


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