A/DA Flanger

Plugin Manual

Developed by Brainworx in partnership with Rocket Amplification LLC DBA A/DA Amplification and Distributed by Plugin Alliance.

PLUGIN ALLIANCE   A/DA   BRAINWORX

The A/DA Flanger is arguably the most influential and legendary effects pedal of its kind. Born in 1978, its now extremely rare Panasonic® BBD (Bucket Brigade Device) chip delivered infinite time delay sweeps that let guitar notes and sounds soar out of speakers. Where most other flangers offer a 20:1 time delay ratio, the Flanger delivers 40:1, allowing infinite sweeps that perfectly mimic the true sound of tape flanging. An onboard switch offers the ability to emphasize odd or even harmonics, while the built-in noise gate tames low-level instrument noise and emphasizes higher dynamics. It's no wonder the A/DA Flanger made its way into genres ranging from Rock, to Funk and Reggae—and onto the records of artists ranging from Pink Floyd to Van Halen to The Police.

Under full license with A/DA, we at Brainworx bring that iconic sound into the digital domain with an immaculate recreation of the original Flanger, adding a host of new features exclusive to the Plugin version. Switch between the classic 1979 model with the vintage BBD, or upgrade to the reissue 2009 model that implements a slightly different character. Apply flanging to stereo tracks, or upmix from mono, widening the soundstage and enveloping listeners in ethereal bliss. The A/DA Flanger Plugin even includes onboard Saturation, an adjustable noise floor, a Mix knob, and host-sync to synchronize the Sweep LFO to the tempo of the host application.

Once called "the Holy Grail of flangers," the A/DA Flanger makes the perfect addition to any digital guitar rig or mixer's toolkit.
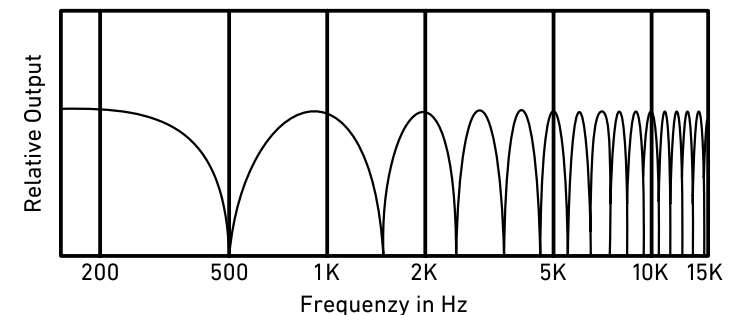
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The A/DA Flanger is a second generation electronic flanger capable of producing a broad range of sound colorations, dramatically enhancing the effect of any amplified musical instrument, voice or percussive instrument. The term „flanging" refers to the technique of manually varying the speed of two tape recorders independently with the same program material, while mixing down in recording studios. The A/DA Flanger electronically simulates varying speed in real time, during the performance.

The capabilities of the A/DA Flanger are numerous and astounding. Effects such as rotating speakers, chilling vibrato, „jet" sounds, resonance modification, intensified studio flanging and incredible filter matrices, to name a few, suggest that experimentation will certainly find the sound you have been looking for. When two identical signals separated by a short time delay are added together, reinforcements (peaks) and cancellations (notches) occur in the output level.

The positions of the peaks and notches are mathematically related to the time delay as can be seen in the graph opposite. The example shows the „comb filter" that occurs at the output of the A/DA Flanger at 1 msec time delay. If a 500 Hz signal is introduced into the Flanger at 1 msec delay, it will not be heard at the output. However a 1000 Hz signal will be reinforced, thus heard at the output. By changing the time delay, we move the position of the peaks and notches up or down the audio frequency spectrum creating flanging effects.

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Features

1 Threshold

A noise eliminating gate that removes noise when input signal level is low. It allows to highlight the effect on louder passages. Full clockwise position minimizes this function.

2 Manual

Sets the time delay. Is disabled when Range is turned fully clockwise. Minimum delay is 0.4 ms (fully cw), maximum delay time is 14 ms (fully ccw).

3 Range

Determines wether the time delay is controlled via Manual or the Speed control, or a combination of both. Range controls the amount of modulation applied to the delay time LFO. At minimum position no modulation occurs and delay time is determined by the Manual setting. As Range is increased, the amount of modulation becomes "wider" (a broader sweep). At maximum the delay time sweeps throughout its entire range, automatically creating the same sound as moving the Manual control repeatedly back and forth from minimum to maximum.Determines wether the time delay is controlled via Manual or the Speed control, or a combination of both. Range controls the amount of modulation applied to the delay time LFO. At minimum position no modulation occurs and delay time is determined by the Manual setting. As Range is increased, the amount of

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1 Speed

A continuously variable sweep that moves over the entire delay range, shifting the comb filter up and down the spectrum. Minimum sweep rate is 0.04 Hz (25 sec), maximum sweep rate is 10 Hz (0.1 sec).
Sync On: from 16 Bars to 1/32.

2 Enhance

The amount of the effect signal which is fed back into the delay line. This produces amplitude peaking and more resonant sound.

3 Harmonics

Allows passband peaking at even or odd harmonics relationships. This switch inverts the polarity ("phase") of the processed signal. When the processed signal is inverted and combined with the dry signal, the resultant comb filtering has a different timbre than when polarity is normal. It often sounds more "hollow" when polarity is inverted.

4 Level

Attenuates the input level by –14 dB.

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1 Stereo

This software-only switch modifies the processed signals at the outputs when used in a stereo-output configuration. When Stereo is enabled, a phase difference of 180° (antiphase) is applied between the Sweep LFO of the two channels. This phase offset produces a panning effect. When the Range parameter is at 0% the stereo mode has no effect.

2 Sync

Synchronises the speed of the sweep LFO to the host tempo (DAW).

3 Rate Display

The rate of the Sweep LFO is displayed here. When Sync is inactive, the LFO speed is displayed in Hertz. When Sync is active, the LFO speed is shown as a beat division.

When the LFO speed is out of range „----" is displayed.

4 Output

Adjusts the output level of the plugin. The available range is -24 dB to +12 dB.

5 Model

Switches between the model for the vintage unit 1979 and the reissue of 2009.

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We have provided the following control knobs settings for you to experiment with, so that you may quickly familiarize yourself with the A/DA Flanger. We have left some of the knobs in the following diagrams without pointers because their positioning has little or no effect on the given setting. To find the proper setting of the Threshold control, hook up the A/DA Flanger for use and turn the Threshold knob fully clockwise. Connect an instrument to the Flanger and play a note or chord. As the signal decays some residual noise in the Flanger will be heard. Slowly turn the Threshold knob counter-clockwise until the flanging effect, along with the noise, is squelched. This is the position in which this control should remain set for all of the following diagrams.

1 Full Range

This setting demonstrates the maximum sweep range of the A/DA Flanger.

2 Even/Odd Harmonic Comparison

Move the Even/Odd switch back and forth for comparison at various Manual control settings.

3 Vibrato

The Speed control sets the speed of the vibrato. The Range control determines the depth of the vibrato.

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1 Leslie

The adjacent setting is for chorale or slow Leslie. For tremolo or fast Leslie, turn the Speed knob further clockwise.

2 Pitch Change

Turning the Speed control further clockwise increases the amount of pitch change.

3 Chorus Effect

This setting produces the popular "chorus effect" which "thickens" the sound of your instrument.

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Top Toolbar

1 Undo / Redo

You can undo and redo changes you made to the controls of the Flanger 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 Flanger 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.
- Bypass the Delay.

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

4 Saturation

Adds Brainworx XL Saturation to the effect signal. Doesn't influence dry signal.

5 Mix

Controls the mix and balance between the direct signal and the processed signal. The default value is 50%. This reflects the initialised state of the original hardware.
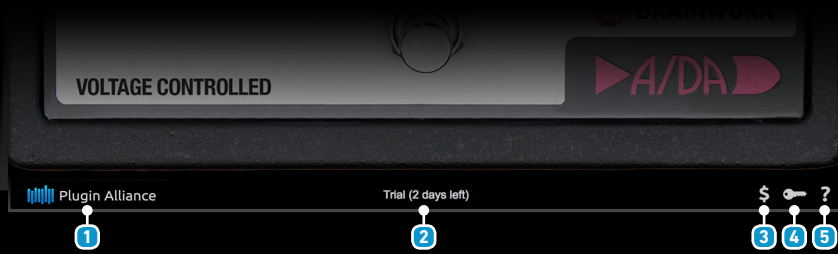0% = unprocessed. 100% = processed signs only.

6 Noise

Adds noise characteristics of the original hardware unit. It influences the processed signal only.

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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
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