Duck Delay

Manual

Thank you for choosing the Duck Delay!

The **Duck Delay** is an echo machine with sounds never heard before. And these sounds are at your fingertips. **Modulation**, **EQ** and **Saturation** paired with an outstanding **delay algorithms**, adding up in this plug in.

A combination of **ducking**, **diffusion**, **distortion** and **musical modulation** enable you to create walls of sound without masking/tempering with the original signal. With these ef–fects, you can design characterful rooms, echoes and soundscapes, without the hassle of routing the signal through various aux busses. All parameters are visible and editable in a single place.

Another outstanding feature of the Duck Delay are the **Rhythm Preserving Ping-Pong modes**. This is a feature that has never been realized before. With a single button you can change the position and the rhythmical interaction of the delay.

You accidently changed a parameter and want to go back? No problem, the **undo/redo** function covers **256 steps** back and forth. The **A/B** feature covers direct comparison of two settings.
A preset browser gives you access of several presets coming with the plugin and allows you to save and recall your own presets.

The **Duck Delay** is compatible with **32bits** and **64bits** systems:
Windows 7 and above
Mac OSX 10.6 and above
The Plug in Formats supported are:
VST2, VST3, AU (Mac Only) and AAX

Table of Contents

The Duck Delay

The **Duck Delay** is divided in **5 sections**:
On the left-hand side you find the **delay** section, on the right you'll find the **effects**, e.g. saturation and modulation.
The middle segment contains the remaining three sections:
On the top you find the **header** section. There is also the **undo/redo** function, the **preset menu** and the A**/B & copy** function.
Below that you'll find the settings for volume and the bypass button.
And finally there is the heart of the plug in the ducking section.

Controls

When pressing the **Shift** key while moving wheels and sliders, the accuracy is increased. Parameters are adjusted in more detail. This corresponds to a zoom function: The controller turns slower and thus in smaller steps

While pressing the **Option** key (Mac) or the **Alt** key (Windows) the behavior of the knobs are changed from linear to circular. The means instead of moving the mouse up and down to change the value, you have to draw a circle, just like twisting knobs in the analog world. The advantage: you can adjust the knob more precisely.

With **command click** (Mac) or **control click** (Windows) you are resetting a slider or knob to its initial/default setting.

The EQ section is reset to defaults by clicking on the EQ-display while pressing **Alt** or **Option**.
With the mouse wheel or the right mouse button you change the **band with** of the selected **EQ** band.

Delay section
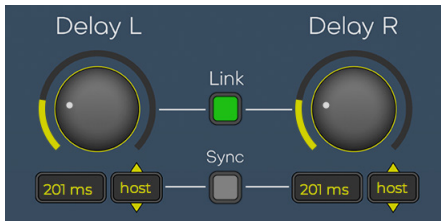
Delay L and **Delay R** set the delay time separate per channel.
If you press the **Link** button, both delay knobs are linked, in order to only turn one knob to move both. If their positions are uneven at the beginning, the amount of displacement will stay the same.

The delay has 2 modes. In **unsync** mode you can also select a rhythmic subdivision of the actual host tempo, which will be saved as a time
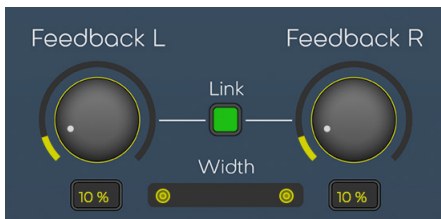
The **Feedback** knob adjusts the volume of the echo repetitions.
The first repetition always has the same volume as the original signal.
The following repetitions are multiplied with the feedback factor = 50% leads to the following factors: 1, 0.5, 0.25, 0.125 (0dB, –6dB, –12dB, –18dB).

The **Width** slider adjusts the stereo width of the echoes. The circles indicate where the first and second repetitions will appear.
If the circles are set to the sides (default) a stereo delay is created, if they are set all the way to the middle, the delay repetitions are centered, like a mono-delay.
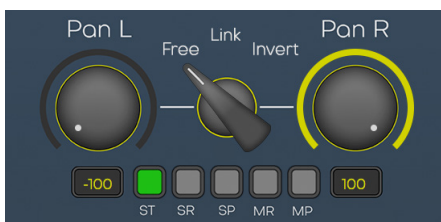
The **Pan L** and **Pan R** knobs determine the position of the left and right delay signals.

1. If the switch is set to **free**, the knobs can be adjusted individually.
2. If the switch is in **link** position, both controllers move in the same direction relative to each other.
3. In the **invert** position, they move in opposite directions
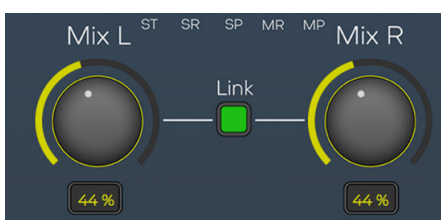
The **Mix** knob allows you to adjust the volume of the effect signal relative to the original signal. The Left and Right settings can be adjusted individually or, when the link button is activated (default), they move in the same direction with the same amount.

The **Duck Delay** populates **5 delay modes**.

In this example, we use an eighth note as the left and a dotted eighth note as the right delay.

The **Stereo Delay** is a classic delay. It's like a mono delay for each channel. The left signal is always delayed with the delay time set on the left, the right signal always with the one on the right. It works like two mono delays.
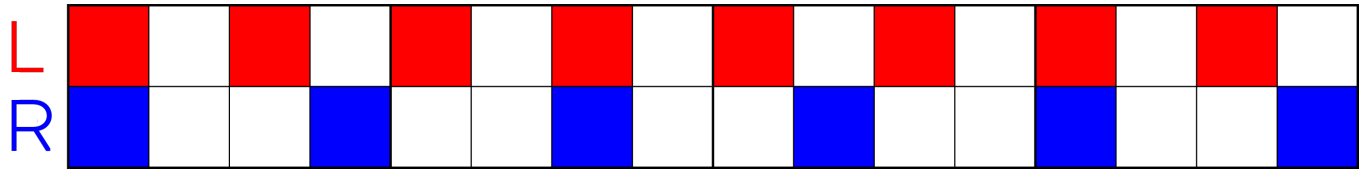

The **Rhythm Preserving Stereo Ping-Pong Delay** is a crossover delay. The left channel's echo is routed to the right one, while the right channel's is routed to the left. . The delay settings for each channel are maintained, so the initial delay rhythmic stays intact.
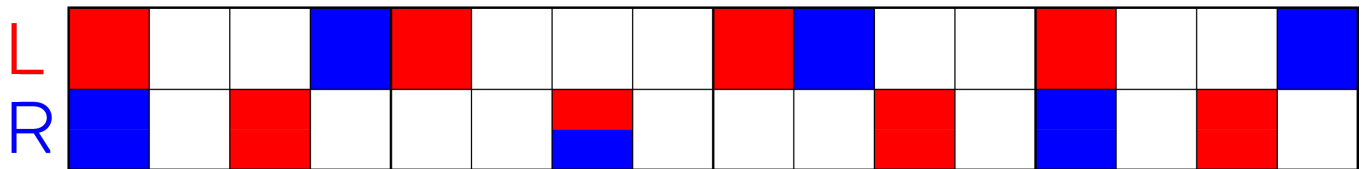

In the **Classic Stereo Ping-Pong Delay** mode, the left channel first goes through the left delay time and is played out on the left side, then through the right delay time, and is played to the right side. The same happens to the right channel, but in opposite direction.
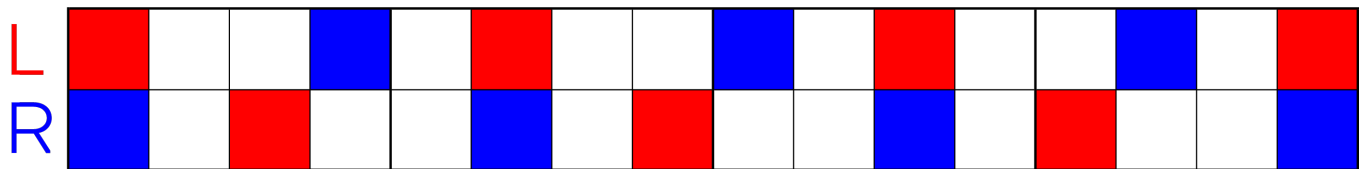

The **Mono Rhythm Preserving Ping-Pong Delay** is similar to the Stereo Rhythm Preserving Ping-Pong Delay. The difference is, that both channels are mixed down, before they go into the delay circuit. The repeats on both channels start on the left-hand side.
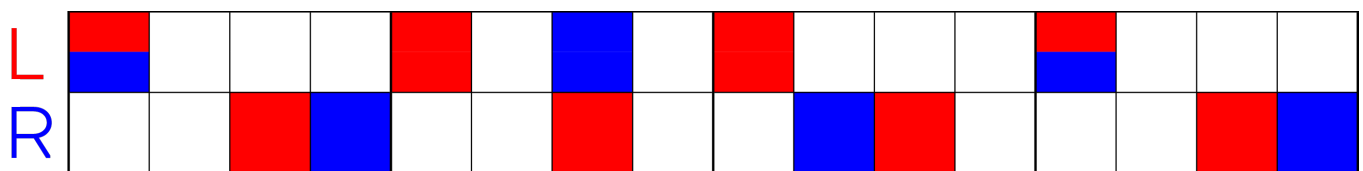
For the **Mono Ping-Pong Delay**, both channels will be played first with the delay of the left channel on the left side, then with the right delay on the right side.
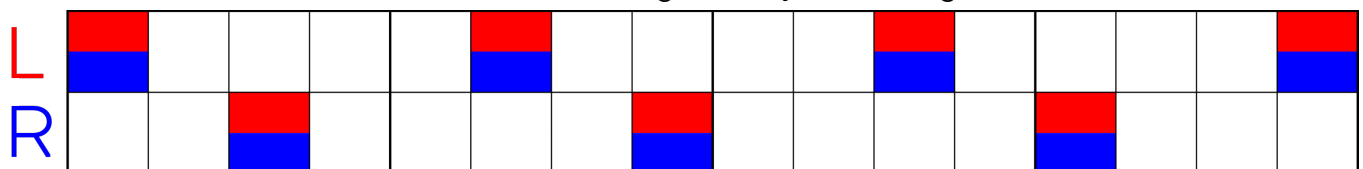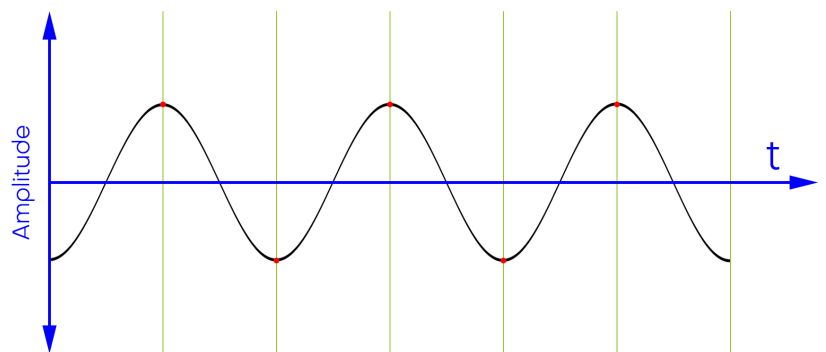
Effect section
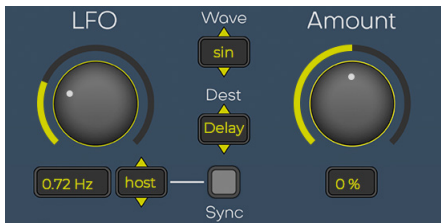
The **LFO** knob sets the frequency of the modulation.
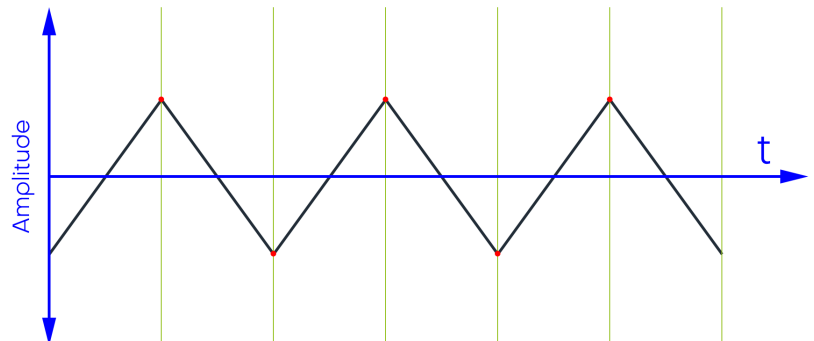**Amount** sets it's depth.
You can sync the **LFO** to the host tempo by pressing **Sync** or save it in milliseconds.

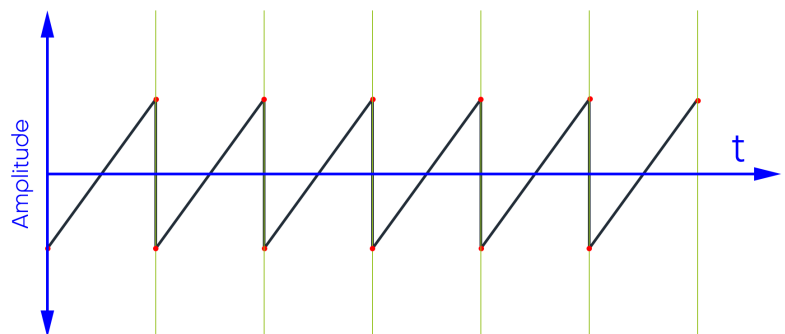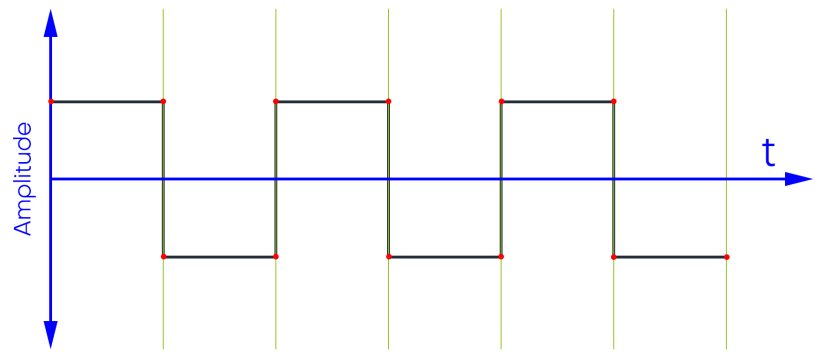The following **modulation curves** are available:
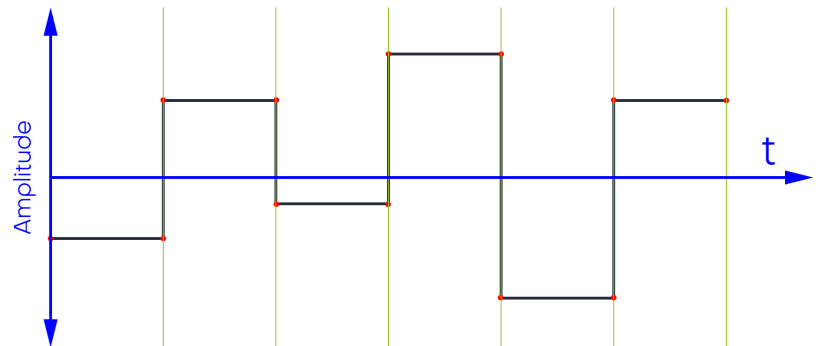
1. Sinus

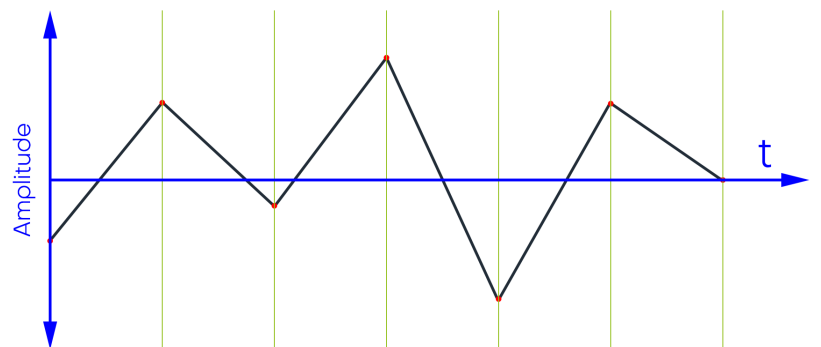**2. Triangle**

3. Saw

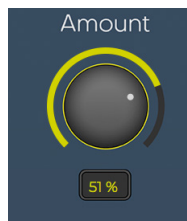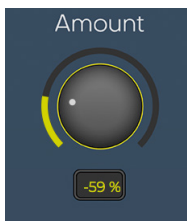## 4. Rectangle

5. Random hard (S&H 1)

6. Random soft (S&H2)

The following **target parameters** are available:

1. Delay Time
2. Low-pass Filter
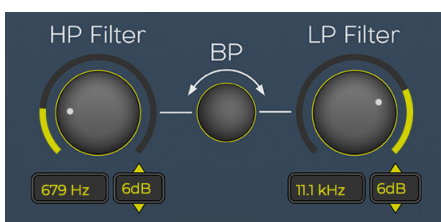3. High-pass Filter
4. Band pass Filter
5. Panorama

The modulation depth is zero with the Amount knob set to the middle. Turning it right will raise the depth. Turning it left raises the depth for the inverted LFO Signal.

Saturation adds tasty tape-like colour and warmth to the delay sgnal.

With the **Distortion**, you can overdrive the delay signal. You have the possibility to place the effect before or after the delay section. In fact, you have the choice between two different distortion effects.

The **Diffusion** knob blurs the delay signal like a reflection by a rough surface.

The **Filter** section is modeled after a real tape delay. Depending on the amount of repeats, the filters are damping each repeated signal a bit more, just like on a real tape delay.
Here is an example: A 1 kHz 6dB high-pass filter dampens the first repeat 6dB per octave, on the second 12dB, the third 18dB and so on.
The filters are adding up.
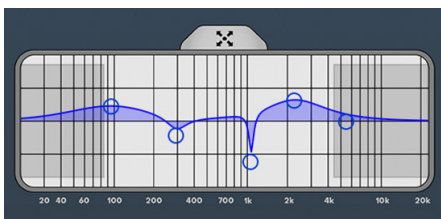
The **corner frequencies** of the high- and low-pass filters are displayed in the equalizer display portion.
It is also possible to change the filter quality:

- **6dB**
- **12dB**
- **24dB**

The **5-Band Equalizer** allows you to manipulate the delay signal in the frequency spectrum.
The circles are movable via mouse and can be used to set the frequency and the amplitude.

With the **mouse wheel** or the right drag on the mouse you set the **Q**.
Left clicking and pressing **Alt** or **Option resets** the EQ to the default setting.

For more accuracy it is possible to expand the EQ window with the little cross above the EQ window. You can close the window again by clicking the same cross or by clicking **Close** at the top right corner.

Ducking

The Ducking is basically a compressor. The parameters are well known:

· The **Threshold** button determines the threshold at which the compressor starts to work.
· The **Amount** display represents the actual reduction.
· With **Attack** and **Release** you determine the speed with which ducking starts and stops working
· Use the **Ducking** knob to set the the actual gain reduction of the delayed signal.
· By turning the **Makeup** knob you increase or decrease the volume of the delay signal.

The **ON/OFF** and **Output** section allows you to bypass the plugin and raise or lower the overall volume, including the original signal.
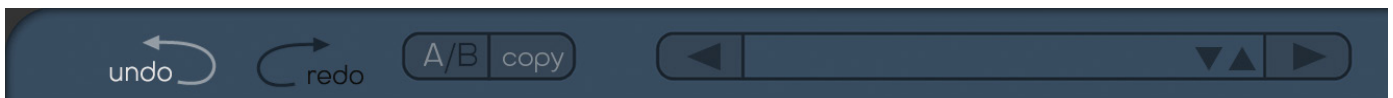
Undo/Redo, A/B & Presets

Via **Undo** and **Redo** you can do exactly as it says. You can undo or redo previously taken steps.
E.g. if you just want to check what you did a minute ago, its no problem, press undo to activate the time machine and go a step back, if you have seen what you want return by redo to your current setting.
Important: The **Undo/Redo** list is reset when loading a preset from the DAW. In this case the settings are automatically copied to A and B.
If you load a preset with the internal browser the changes will simply be added to the undo/redo list.

With **A/B** you can compare two presets by toggling in between A and B.
With the copy command the preset A is copied to preset B if A is active and vice versa.
The switching from A to B is written in the **Undo/Redo** list and can be recalled.

Navigating the preset menu is easy as it should be. With the **left/right arrows** you scroll through the presets.

Arrow down saves your actual preset
Arrow up opens the preset browser, where you can choose your favorite preset.

If a **preset** is called up via the preset browser the changes are saved in the **Undo/Redo** list and copied to the active **A/B** Setting.

The **presets** are located in the following folder:

Mac: /user/[user name]/documents/DuckDelay/

Windows C:\Users\[username]\Documents\DuckDelay\

First start, buying and registering

As long as the plugin hasn't been registered there is a splash screen popping up to remind you to **register** your plug in.

If you want to demo the plug in press the button **Demo**. The plugin can be tested in full functionality. Only a friendly voice reminds you from time to time that the plugin is in demo mode.

To buy Duck Delay visit:

https://www.mondstein-records.com/buydelay

or click on the **Purchase** button on the splash screen while pulling up the plugin.
In anyway you need a active connection the internet to buy the plugin.
Before buying with the PayPal **Buy Now** button, you should definitely enter the lock from the registration page in the lock box above the PayPal button:

After the payment is made you receive an e-mail from **info@ismism.de** on you PayPal e-mail address.

If the lock is not supplied before making the payment it takes up to two working days to supply you with the register data.

If you haven't receive the e-mail within **15 minutes** after the payment has been sent, check your **spam folder** in your mailbox. Especially gmail is prone to remove mails occasionally to the trash can or the spam folder.

If the e-mail is in the inbox, you can continue registering **Duck Delay**. Go to the register splash screen, enter the missing information in the appropriate fields and press **Activate**. If the registering informations are valid and accepted, you should **restart** you Host Application/DAW. In some rare cases it might be necessary to **reboot** the whole computer.

The Duck Delay has been beta tested to the bone.
As you might be aware, this world is neither perfect nor we can test each single situation or configuration.
Our advice is to download the plug-in run it in demo mode and test it, before buying.
In the unlikely case you encounter any issues with the product, please don't hesitate to contact us. We take care of business! We don't like bugs…
For support and technical issues send an e-mail to:

DuckDelayBug@mondstein-records.com

We are obliged to help!

Product idea, concept und graphics:

[Thom Wettstein](#)
Mondstein Records GmbH

Coding and audio-algoriths:

[Thomas Rehaag](#)
Intelligent Sound and Music