REV INTENSITY

ARTURIA©
YOUR EXPERIENCE · YOUR SOUND

Special Thanks

DIRECTION

Frederic Brun   Kevin MOLCARD

ENGINEERING

Samuel Limier	Raynald Dantigny	Yann Burrer	Pierre-Lin Laneyrie
Kevin Arcas	Alexandre Adam	Corentin Comte	Mathieu Nocenti
Simon Conan	Baptiste Aubry	Loris De Marco	Marie Pauli
Alessandro De Cecco	Timothée Behety	Geoffrey Gormond	

MANUAL

Fernando Manuel Rodrigues (author)	Leo Der Stepanians	Minoru Koike
	Randy Lee	Charlotte Metais
Camille Dalemans	Holger Steinbrink	Jose Rendon

SOUND DESIGN

Jean-Michel Blanchet   Victor Morello

DESIGN

Martin DUTASTA	Clément BASTIAT	Shaun ELWOOD	Morgan PERRIER

TESTING

Florian Marin

BETA TESTING

Gustavo Bravetti	Raphael Cuevas	Fernando Manuel Rodrigues	Chuck Zwicky
Andrew Capon	Ben Eggehorn		Randy Lee
Chuck Capsis	Tony Flying Squirrel	Terry Marsden	
Jeffrey Cecil	Mat Herbert	Bernd Waldstädt	
Marco Correia (Koshdukai)	Jay Janssen	George Ware	

Product version: 1.0

Thank you for purchasing Arturia's Rev Intensity!

This manual covers the features and operation of the Rev Intensity.

Be sure to register your software as soon as possible! When you purchased Rev Intensity you were sent a serial number and an unlock code by e-mail. These are required during the online registration process.

Special Messages

Specifications Subject to Change:

The information contained in this manual is believed to be correct at the time of printing. However, Arturia reserves the right to change or modify any of the specifications or features without notice or obligation.

IMPORTANT:

The software, when used in combination with an amplifier, headphones or speakers, may be able to produce sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high level or at a level that is uncomfortable.

If you encounter any hearing loss or ringing in the ears, you should consult an audiologist.

Introduction

Congratulations on your purchase of Arturia's Rev Intensity!

Arturia's passion for synthesizers and sonic purity has given demanding musicians the best software instruments for professional audio production.

Arturia also has a growing expertise in the audio field, and in 2017 launched the AudioFuse, a pro studio quality audio interface that features two proprietary DiscretePRO® microphone preamplifiers and a set of top-notch AD/DA converters. This line was recently expanded with the launch of the AudioFuse Studio and the AudioFuse 8Pre. Arturia has also been busy making effect plug-ins, launching in 2018 the first Arturia effects bundle: 3 PreAmps You'll Actually Use, which included the 1973-Pre, the TridA-Pre, and the V76-Pre.

Other bundles followed, dedicated to compressors and delays. With the launching of a new effects bundle, this time dedicated to reverbs, Arturia consolidates its position as a leader in audio effect plug-ins.

The ARTURIA Rev Intensity is one of the three reverb plug-ins included in the current bundle, and benefits from decades of experience in recreating the most iconic tools of the past.

ARTURIA has a passion for excellence and accuracy. This led us to imagine an algorithmic reverb that would unite the best of yesteryear's digital reverb units with today's state-of-the-art in audio processing. Our aim was to create a reverb that would be more than just a reverb, including also our own vision of what a modern reverb unit could do in terms of a more creative approach to the sound. Many features usually not seen in a reverb were added, to stoke that spark of creativity into a flame.

Rev Intensity runs as a plug-in in all major formats inside your DAW.

DISCLAIMER: All manufacturer and product names mentioned in this manual are trademarks of their respective owners, which are in no way associated or affiliated with Arturia. The trademarks of other manufacturers mentioned are used solely to identify the products of those manufacturers whose features and sound were studied during Rev Intensity development. All names of equipment inventors and manufacturers have been included for illustrative and educational purposes only and do not suggest any affiliation or endorsement of Rev Intensity by any equipment inventor or manufacturer.

The Arturia team

Table Of Contents

1. WELCOME

1.1. What is a reverb?

We all know the phenomenon that is reverberation and have experienced it, even if not consciously. Reverberation is the sum of all sound reflections that happen in a room or space when a sound is produced. That's what gives us the perception of the space, and also "imprints" the sound signature of that space in the perceived sound.

That's an inescapable phenomena, and we will experience it even if we don't want to. Although most of the time it is a good thing to have, and contributes to giving life and dimension to the sound, that's not the case when we want to record something.

Usually, studios have controlled acoustics in their recording rooms, and the recordings are done using microphones close to the sound sources, this way reducing the effect of the reverberation on the recorded signal. Reflections are still added, but not enough to have a significant influence on the audio and its original spectrum. Great efforts are taken to treat the room acoustics to ensure this.

Some ambience is usually added afterward, though. That's where artificial reverb units come in handy. Today, we have lots of devices with sophisticated techniques and algorithms to reproduce the acoustics of any room and space we want. However, it wasn't always like that. In the past, engineers had to turn to the mechanical properties of springs and large steel plates to create some artificial ambience for the sound. That "ambience" didn't aim to reproduce any kind of natural room or space sound signature; it was there just to add liveliness and dimension to the sound.

But with the advent of digital technology, plates and springs were replaced by digital units which, by means of complex chains of digital delays and feedback loops, were able to mimic all kinds of ambiences: rooms, halls, churches, and even the reverberation of the old plates and springs.

These new units became simply known as digital reverbs. Nowadays, because almost all reverbs are digital, including those based on convolution, we specifically call them algorithmic reverbs. Nevertheless, if there is a reverb unit simply called a "digital" reverb, one can safely assume that it is an algorithmic reverb.

These new reverb units had several advantages over the mechanical ones:

1. They were much smaller and easier to handle;
2. They were able not only to simulate the effect obtained with plates and springs, but also simulate real acoustic spaces like rooms, halls, chambers, churches, stadiums, etc. Some even added other effects like chorus, phasing and delay;
3. They came with several presets already programmed, and were able to store user presets with favorite configurations.

Digital reverb units sounded much closer to real space ambiences. However, they usually also sounded brighter and more "sparkly" (which wasn't considered bad, at all).

Also, engineers were able to be even more creative about reverb. The digital reverb units became so popular, and the reverb effect so prominent in the recordings, that the 80s decade became forever defined as the "reverb" decade.

Rev Intensity Main Reverb Controls

1.2. What is Intensity Reverb?

Intensity is Arturia's vision of a digital algorithm reverb. It was inspired by the classical digital reverbs that dominated the eighties, but complemented with many features that were not possible to find in those units.

Digital reverbs started to appear in the late seventies. The first units attempted to recreate the distinctive early reflections of natural space through the use of delay lines. The level, spectrum content and timing of these delays were controlled by mathematical algorithms to achieve similar results. These algorithms were mostly tuned by hand to produce a pleasing sound result, rather than attempting to accurately reproduce real spaces.

That's what inspired us to produce Intensity. In the past, every company had its own method of designing algorithms. That's why the sound of digital reverbs differs so much. Intensity is not emulating any unit in particular; rather, we aimed to capture the spirit that led to the creation of those great digital reverb units.

As happened with the old digital reverbs, we have the rooms, chambers, studios, halls, arenas, concert halls, and cathedrals. We also have other kinds of space simulations.

But that's not all. Intensity comes equipped with many tools to allow you to go *beyond* reverberation into truly creative audio manipulation. There's a pre-filter and post-filter, feedback control, a chorus modulator, soft clip, and a Freeze mode. Advanced features include a function generator and an envelope follower, which can modulate audio even through a side-chain signal. These are both capable of modulating four destinations simultaneously! With all of these features, the tools to achieve unique results are there at your disposal.

1.3. Where can we use a reverb like Intensity?

There's basically no limit to where a reverb can be used, especially a reverb as versatile as Intensity. Although plates also sound good, vocals can greatly benefit from a good algorithmic reverb, especially if we are talking about pop vocals.

Drums and guitars traditionally use more springs and plates, but nothing prevents you from trying Infinity on those tracks. You could even start with a plate or a spring reverb and then mimic that sound using Infinity, or even mix the two for a more complex sound. In the eighties, drums were often processed with digital reverbs, to get those "roomy" drum sounds.

Synthesizers and other electronic equipment also greatly benefit from an algorithmic reverb. Bear in mind that nowadays almost all synths come with their own effects, including reverb, and many presets make heavy use of it. So if you intend to use Infinity with those sounds, it may be a good idea to first turn off the reverb that comes pre-programmed in the presets.

Rev Intensity showing all the controls available

There are also some more creative possibilities allowed. The presence of so many modulation sources in Intensity makes it a great tool for pure sound-design. Try to modulate some parameters with an external side-chain signal via the Envelope Follower, for example, and also try the Function Generator on other (or even the same) parameters. Heck, you can even modulate the Function Generator with the Envelope Follower.

Experiment extensively with the filters and the feedback. Intensity has a lot of potential for being creative. Most of all, enjoy it.

2. ACTIVATION AND FIRST START

The Arturia Rev Intensity plug-in works on computers equipped with:

Windows 7 or later and macOS 10.10 or later.

You can use the Rev Intensity plug-in as an Audio Unit, AAX, VST2 or VST3 plug-in (64-bit only).

2.1. Activate the Arturia Rev Intensity license

Once the software has been installed, the next step should be to activate your license, so that you can use it without limitations.

This is a simple process that involves a different software program: the Arturia Software Center.

2.1.1. The Arturia Software Center (ASC)

If you have not already installed the ASC, go to this web page:

https://www.arturia.com/support/updates&manuals

Look for the Arturia Software Center at the top of the page, and then download the version of the installer that you need for your system (macOS or Windows).

Follow the installation instructions and then:

- Launch the Arturia Software Center (ASC)
- Log into your Arturia account
- Scroll down to the My Products section of the ASC
- Click the Activate button

That's all there is to it!

2.2. Working with plug-ins

Rev Intensity can be used in all major digital audio workstations (DAWs), including Live, Logic, Cubase, Pro Tools and others, as it comes in all the main plug-in formats. Unlike what happens with hardware, you can load as many instances of Rev Intensity as you find useful. Rev Intensity has two other big advantages over hardware:

- You can automate numerous parameters using your DAW's automation system;
- Your settings and current plug-in state will become recorded in your project, and you can pick up exactly where you left off the next time you open it.

3.1. Arturia's Intensity plug-in

Our goal wasn't to make an exact replica of a specific reverb unit. Although this plug-in is inspired by the classic digital algorithmic reverb units that became widely popular during the 80s, it is our own personal take on that classic approach (with many added features, of course).

Arturia's Intensity Reverb

We kept the user interface relatively simple and clean, faithful to our aim to always keep things as simple as possible. But this is a complex effects unit, filled with several controls not usually seen in a reverb, which allows you to greatly expand your creativity while still having fun using it.

As is usual with the effect plug-ins produced by Arturia, the Graphical User Interface (GUI) has two panels, the main panel and the Advanced panel.

The main panel has the more "traditional" reverb controls, like Size, Decay, and Damping. These are complemented with controls like Feedback and Reverb Level.

But we also included several more substantial and sophisticated features. These appear in a separate "Advanced" panel that opens below the main panel. Here you will find two filter sections (Pre-Filter and Post-Filter), a Side-Chain Envelope Follower, with a dedicated Input Compressor, and a Function Generator for modulation purposes.

We will take a detailed look at all of these things in the . Now, it's time to check out how it sounds. Let's go!

3.2. Understanding the Rev Intensity Signal Flow

The Rev Intensity plug-in is a very flexible reverb, which allows for some complex routings.
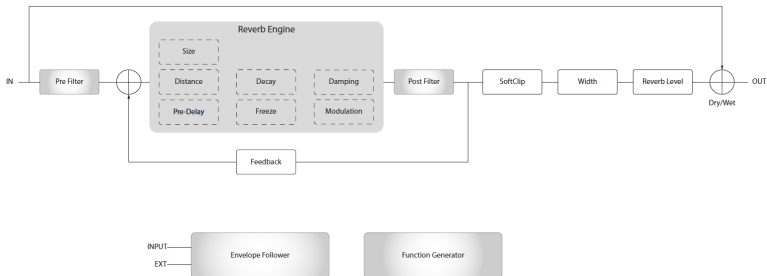
As the signal enters the plug-in, it is split into two audio paths:

1. The "reverb" signal path;
2. The "dry" path. The signal on this path is sent without any processing to a mixer just before the reverb output, which is controlled by the Dry/Wet control knob.

A copy of the dry audio is also sent to the Input of the Envelope Follower.

The "reverb" signal path is sent through the Pre-Filter circuit, which allows you to shape the signal spectrum before it enters the reverb chain. Some parameters of this filter may be modulated by the two complex modulators present in the Advanced Panel, as is the case with many other modules of Intensity.

After that stage the signal finally enters the Reverb Engine. This is the heart of the plug-in. This processing engine is a complex one, with controls like PreDelay, Distance, Size, Decay, Damping and Width.

Most of these parameters may be also modulated in real time by the two complex modulators. One of these modulators is the Envelope Follower, which may be controlled internally by the input signal or by an external side-chain signal. The reverb parameters may be additionally modulated by the other modulator, which is a Function Generator. Both the Envelope Follower and Function Generator can be synced to the host tempo.

After passing through the Reverb Engine the signal is sent through the Post-Filter. Once again, most of the filter parameters may be modulated by the Envelope Follower and the Function Generator.

After the filter the signal is split again. One copy of the signal is fed back to the Reverb Engine, controlled with the Feedback control. This allows you to add some distortion to the reverb signal.

The other copy of the signal is sent to the output mixer through an additional Soft Clip processor, which can add some saturation to the signal.

If the reverb signal is in stereo then it is routed through the Width control, which acts like a "monoizer" for the reverb. This stage only applies to stereo tracks.

The reverb signal is then sent through a level control called Reverb Level. This controls the gain of the output reverberated signal.

After passing through the Reverb Level control the signal is finally sent to the Output, where it is mixed with the Bypass signal. Relative levels of both signals are controlled with the Dry/Wet control.

This is the complete signal flow of the Rev Intensity. Don't let it overwhelm you. Study the circuit, spend some time with the controls, and we're sure you'll gain a deep understanding of how the reverb works. The following section will definitely give you some help.

3.3. Getting hands-on with Rev Intensity

3.3.1. Reverb Basics

To get an idea of Rev Intensity's capabilities, we suggest you try the following:

- Load a stereo clip into an audio track in your DAW (drum or vocal tracks are ideal for this; the drier, the better);
- Load an instance of Rev Intensity as an insert in that track. Open the Rev Intensity window;
- Ensure the Default preset is loaded. This will mean that all settings are positioned in their initial values;
- Begin playback. The clip will already have some reverb. You can change the amount of reverb added to the sound by simply turning the Dry/Wet knob left or right. By default this control is positioned at the center (0.500), which means it will mix 50% reverberated signal with 50% dry signal. Turning the knob fully to the right will give you 100% Wet sound, while 100% to the left provides 100% Dry sound;
- Now let's try some heavier processing, just to check out the main features of the Rev Intensity. First of all, turn the Pre Filter On. Now, turn the Freq control fully to the left. You'll notice that the sound becomes Dry. That's because the plug-in is filtering the Wet signal, letting only the Dry signal pass. You can confirm this by turning the Wet control fully to the right (Wet position). You'll hear almost nothing;
- While the audio plays, and with the Dry/Wet control fully Wet, raise the Pre Filter Freq control. Now you will hear sound again, but somewhat mellower. That's because the filter is cutting off the high frequencies. Try some other filters, and check also the Resonance effect (this filter acts like a synth filter, so the Resonance will boost frequencies around the cutoff point). You have three different filter configurations for each type of filter: Low Pass, High Pass, and Band Pass. Each configuration presents a different slope for the filter cutoff curve. The higher the slope, the steeper the filter curve will be;
- Now, let's turn Off the Pre Filter again, to check the Reverb controls with the original sound. You may want to keep the Dry/Wet control fully to the Wet position, to better listen to the changes each control causes to the reverberated signal. We'll start with the PreDelay and Distance controls. These influence the perception we have of the distance at which the original sound source is positioned. Try different values for each control to check how they affect the final sound. In the end, you may put these back in the default position by double-clicking the controls;
- Size control is where we define the size of the "room" we want to position the sound in. This parameter will greatly influence the Decay. The bigger the "room" the longer the same Decay value will affect the sound. Again, it is best to try different combinations. With a big Size, and Decay also at maximum, the reverb tails tend to last for a very long time (resembling a cathedral). A big Decay with the Size set to minimum will give you a kind of "bathroom" reverb. The default values will give you a kind of Hall ambience. Shortening the size will change the Hall into a Room;

- Damping is a known reverberation effect. Naturally, high frequencies lose energy much faster than low frequencies. This parameter allows you to emulate that effect or, on the contrary, get an artificial reverb sound rich in high frequencies;

- Width is a control that's only present when the plug-in is used with Stereo tracks (or Mono-to-Stereo, as in Pro Tools). By default it is at the maximum value too, which means it preserves the stereo image of the original sound. Try rotating this control to the left, and observe its effect on the stereo image. You will notice that the image "shrinks" until it becomes mono. As this only affects the reverb signal, it will be more noticeable if you have the Mix control at 100% Wet. This way you can have a stereo signal with a "monoized" reverb tail. This is best tested with headphones.

- Feedback sends back the reverb signal to the reverb chain, allowing some extra depth or natural distortion to be added to the sound. **Note: Please lower the Reverb Level before raising the Feedback value** to avoid potential problems with your speakers.

Rev Intensity used in an audio track

3.3.2. Advanced methods of using the plug-in

Now that you have a feeling for the Rev Intensity basics, let's go a little deeper:

- Click the double downward facing arrows to open the "Advanced" panel;
- This panel has two modulators - the Envelope Follower and the Function Generator. Although the output signals of these modulators are only positive, they may be assigned with positive or negative values. These values are controlled by the knobs above each modulation destination assignment;
- For now let's focus on the Function Generator. This section is at the right of the Advanced Panel. First select a function from the presets available. Click the drop-down menu and select "Slow Rise". The Graphic window over the menu will display a kind of ramp waveform;
- Click the right side of the function, and drag the point to the left until it is placed at around three-quarters. Now you have a kind of Attack-Decay envelope, with a long attack and shorter decay;
- Notice that the Rate is synced to the host tempo. This is part of the preset. You can turn sync Off by simply clicking the Sync button. For the moment, we will keep Sync On;
- Change the rate to 1. This way the function duration will last for a quarter-note value (in a 4/4 bar, it means it will restart on each beat);
- Now select a modulation destination. Reverb Level is a good candidate, as you will notice it easily. Raise the modulation intensity by turning the modulation amount control knob to the right. This is a bipolar control, which means it will affect the destination either positively or negatively. When the knob is position is positive (from center to right), it will boost the parameter values. When it is negative (from center to the left), it will cut the parameter values;
- Now that you've tried the Function Generator, let's look at the Envelope Follower. An envelope follower generates an envelope signal which follows the contour of its input signal volume. This section has a source selector in the upper part of the envelope display . This allows to choose which audio signal will control the Envelope Follower. Here, we can even choose an external source as side-chain control. Sometimes it is tricky to enable and configure a side-chain in some DAWs. If you are comfortable with your DAW, select a side-chain signal with vocals, for example, and use it as the source for the Envelope Generator;
- By default, the Envelope Follower will use the Reverb Input (Dry) audio signal as source. That's what we will use for now. Check the Compressor and Gain controls. The compressor allows you to level the audio volume of the input signal of the envelope follower so that it will be more stable, which helps in achieving a better modulation source. The Gain will control the modulation intensity of the Envelope Follower;
- Now select a modulation destination by selecting it in the drop-down menus (this section is similar to the one in the Function Generator). This time we will select the Output Filter Freq (Post-Filter Cutoff). Make sure that the Cutoff is at a very low value;
- Now raise the modulation amount control knob (by turning it to the right). You may want to raise it to the max to get an extreme effect;
- Now you should notice that the reverb signal level will be filtered according to the volume intensity of the input audio. The higher the volume, the more open the filter becomes.

These are just some very simple examples of what you can do with Rev Intensity. Use your imagination, and try to find other interesting ways of using it.

4. REV INTENSITY CONTROL PANEL

The Rev Intensity plug-in can be used in Mono or Stereo channels.

The Mono configuration is automatically loaded when we use the plug-in with mono tracks. When inserted in stereo tracks, the Stereo configuration is automatically loaded as well. The Stereo configuration will also be loaded when the plug-in is instantiated as Mono-to-Stereo, as in Pro Tools.

> ♪: Not all DAWs are able to work with mono tracks, in which case you will not be able to use the mono configuration.

4.1. Channel Configuration (Mono/Stereo)

The difference between the two configurations consists in the presence of a Width control in the Stereo version, which is deactivated in the Mono version.

Width controls the wideness of the stereo field. When inserted in mono channels, the plug-in doesn't feature this parameter, since we will not have any kind of stereo image to start with.

Rev Intensity inserted in a mono track. Notice the deactivated Width control (knob is grayed)

4.2. Main Control Panel

The Rev Intensity Graphical User Interface is more complex than the other two reverbs. This is a modern reverb plug-in, with many features, and the Main Control Panel reflects that. This panel is where the main Intensity reverb controls are located, and is the one that opens by default when we launch the plug-in.

Besides these, Arturia included some advanced modulation features. These are located in a second panel, the Advanced Mode Control Panel, that opens when we click the double arrow button (the Advanced Mode button) in the Upper Toolbar.

As is the case with the previous effects bundles, as well as with all current Arturia plug-ins, this GUI also has an Upper Toolbar and a Lower Toolbar. The Lower Toolbar is very important for the use of the Arturia plug-ins, as it allows the Undo and Redo functions, lists the editing history, allows you to put the plug-in in Bypass (which doubles the Switch control in the Main Control Panel), and measures CPU consumption.

Of course, the Upper Toolbar is very important as well, since it is where we access the main menus, perform important tasks like loading and saving presets and banks of presets, and where we can select a preset and see the name of the current preset in use. The toolbars and their features are covered in detail in the User Interface chapter [p.28].

We will now have a look at all the controls available, explaining what they do, what are their ranges, and how to interpret the numbers.

Rev Intensity Main Control Panel

Notice that each time we click a control (knob or button), or simply hover the mouse over it, the Lower Toolbar displays the parameter name at the lower left. Also, a small pop-up box appears at the right side of the control displaying the current parameter value. This changes every time we move that control, updating the parameter value in real time. These values aren't always of the same type.

Now, let's take a look at each control in Main Control Panel.

4.2.1. Power

This switch, when turned Off, puts the plug-in in bypass mode. By default it is turned On, which means the plug-in is active.

It does exactly the same thing as the Bypass button in the Lower Toolbar. Notice that in both cases, the GUI changes color when the plug-in is bypassed (becoming darker), and the word "Bypassed" appears.

4.2.2. PreDelay

*Rev Intensity Power
switch and PreDelay
control*

A PreDelay, as the name implies, adds an amount of delay to the sound before the audio enters the reverb circuit (after the Pre Filter stage). This works as a way to simulate a distance closer or more far away from the sound source, adding depth, lushness and dimension to the reverberated sound. The delay times vary from 0.00 ms (no delay) to 250 ms.

We can also synchronize the PreDelay in musical values. In this case, sync values will vary between 1/32 and 1, where 1/32 will mean a thirty-second note and 1 will mean a whole note (or a full 4/4 bar). We also have dotted values and triplet values. When a value is dotted, it will show a *d* after the value. When the value is a triplet, it will show a *t* after the value.

By default, the PreDelay is set to 0.00 ms (Off position). When in Sync, the default position will be 1/8 (one eighth note).

4.2.3. Distance

Distance works in conjunction with PreDelay. The main purpose of this control is to directly set the perceived distance between the sound source and the listener. The closer the source, the stronger the direct sound will be, in comparison with the reverberated signal.

By consequence, we will get a more detailed sound, with less presence of the reverberation. The more distant we position the sound source, the weaker the direct sound becomes. By consequence, we will get less detailed sound, and more presence from the reverberation.

4.2.4. Size

This is where we control the room size. It is the most important control in a reverb effect unit. Traditionally, digital reverbs had several types of "spaces" (settings of the algorithm that resembled real spaces reverb effect). Very often, the algorithms delay times were carefully tuned to behave as close as possible to the early reflections of real spaces. The wider the early reflections, the bigger is the perceived space by our brain.

Digital reverbs pre-defined spaces had names like Room, Studio, Bathroom, Chamber, Hall, Concert Hall, Cathedral, and sometimes also things like Spring and Plate (which means they were trying to simulate the reverb achieved with those mechanical devices).

That's exactly what we achieve with this control. Decay times may affect the pattern of these reflections, changing the perception, but this is the main control to define the space size.

Rev Intensity Distance, Size, and Damping controls. The Size control occupies the center of the Main Control Panel, and has a bigger size. It also displays a graphical representation of the reverb action.

Size has abstract values, changing from 0.00 to 1.00. Default value is 0.500.

With a value around the default, we get a Room type reverb, which can be fine tuned with the Decay. At the max value, and with the Decay slightly above 0.00, we get a Cathedral type reverb (very long tails). With the Decay at the maximum, the Cathedral "size" expands, until we get an almost endless reverb.

When Size is set to values of around 0.250 we get ambiences that may go from Room to Small Hall, depending on the Decay used. With a Size of 0.100, we may get ambiences resembling spaces like the bathroom or small clubs (again depending on the Decay times).

4.2.5. Damping

In a naturally reverberating space, high frequencies decay faster than low frequencies. Digital reverbs usually present much stronger high frequency content, which means we need to cut th high frequencies somehow.

Damping control allows to do that. It woks as an iterative low pass filter on each reflection inside the reverberation reducing the high frequencies in each pass, this way simulating what happens in a real space.

Damping values go from 0.00 to 1.00, and the default is 0.300

4.2.6. Width (Stereo Width)

Width controls the wideness of the stereo field of the reverberated signal. At halfway (centered position) the reverb stereo image is already more centered than the original (Dry) sound. Fully to the right, the stereo field is like the original signal, while fully to the left, the stereo image becomes "monoized".

By default, this control is positioned fully to the right, which preserves the stereo image of the original. Value range goes from 0.00 (fully left, labeled Mono) to 1.00 (fully right, labeled Stereo).

> ♪: The Width control appears only in stereo channels, or when the plug-in is instantiated as Mono-to-Stereo. When the plug-in is instantiated in mono channels, this control will not be present.

Rev Intensity Width and Dry/Wet controls

4.2.7. Dry/Wet

A technique often used with reverb is combining the reverberated signal with the dry signal. The basic concept is having a way to preserve the original audio, while also processing it through reverb. Usually, this was achieved by using a send from the mixer to an auxiliary channel and inserting the reverb processor in that channel. The processed sound would then be routed back to the main mix. So, we had the dry signal in the original mix channel, and the reverberated signal in the return of the auxiliary channel.

We can achieve this directly with the Mix parameter, an add-on introduced by Arturia. With it, we don't need to do complex routing in the mix, since we can balance the Dry/Wet signal directly.

The Mix knob is set by default to the Center (value is 0.500), which means half-Dry/half-Wet. We can turn it all the way to the left (Dry, the original audio), all the way to the right (fully Wet, reverberated signal) or anything in between. Values are displayed in numbers between 0.00 and 1.00, where 0.00 is fully Dry and 1.00 is fully Wet.

4.2.8. Modulation

This is an internal delay/chorus, modulated through an LFO. Chorus allow some extra depth to the sound.

This section has a switch to turn it On or Off, and two other controls:

4.2.8.1. Depth

This controls the modulation intensity. With a slow LFO rate, you get a slightly richer sound. With a faster LFO rate, the modulation starts to become more pronounced, and the sound may become "granulated".

Depth goes from 0.00 ms (no modulation) up to 10.0 ms (extreme modulation).

4.2.8.2. Rate

Rate has a great influence in the modulation (chorus) behavior. With a slow rate, you get more chorus, and may use a higher amount of Depth. With a faster rate, if you add too much Depth, the sound becomes "granulated".

4.2.9. Freeze

This button, when On, cuts the audio input, leaving an infinite reverberation effect.

4.2.10. Decay

This control allows to select shorter or longer decay times for the reverb tails. It reduces or increases the reverb tail induced by the Size control, this way allowing to fine tune the ambience. The control varies between -0.500 to 0.500.

*Rev Intensity Freeze
button and Decay Control*

This control affects the perception of the space reverberation by simulating the addition or reduction of acoustic absorption of the sound reflections by the space surfaces. This way, increasing the decay is like increasing the absorption characteristic of the space, while decreasing it is like reducing the acoustic absorption, allowing more reflections to happen in the acoustic space defined by size.

By default, the selected position is at the middle (*0.00*), which has no action over the Size reverb tail.

You should try this control extensively, coupled with the Size control, to find the best ambience size and tail durations for the reverb effect you want to achieve.

4.2.11. Feedback

This control adds feedback-like distortion to the audio. This is a great control to be modulated by the Envelope Follower. By using a negative modulation amount, with the source set to Input (Sidechain button turned Off), feedback intensity reduces when the modulation signal gets stronger, this way allowing you to have better control over the feedback.

Values go from 0.00 to 1.00. Default is 0.00 (no feedback).
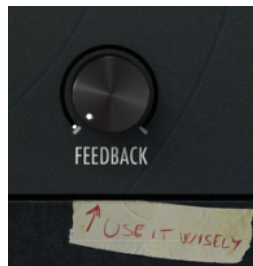
4.2.12. Softclip

This section also has a switch to turn it On or Off.

The Softclip parameter allows you to compensate for gain loss after filtering (Post-Filter). It may also add some saturation/distortion to the signal.

Softclip range goes from O dB (no gain) up to 12 dB. Default is O dB (no gain).

4.2.13. Reverb Level

This controls the level of the Wet signal, before it mixes with the Dry signal. It is an attenuator, ranging from -36 dB up to O dB. Default is O dB (no attenuation).

4.3. Advanced Mode Control Panel

The Advanced Mode Control Panel is accessed by clicking the Advanced Mode (double arrow) button in the Upper Toolbar. These are very important additions that bring a lot of extra power and flexibility to the reverb.

In the case of Intensity, this panel features two filters and two very important modulation sources: the Envelope Follower and the Function Generator. Although the generated modulator signals are always positive, we can have positive or negative modulation amounts set by the control knobs.

Rev Intensity Advanced Mode Control Panel

4.3.1. Pre-Filter

This is a multimode filter coming to Intensity directly from Pigments. It has a selection of three filter types (Low Pass, High Pass and Band Pass), with three cutoff slopes in each type (-6 dB, -12 dB and -24 dB per octave). The entire filter can be switched On or Off by pressing the Active button.

Rev Intensity Pre Filter section

This filter is a very flexible one, and allows to sculpt the sound spectrum before it enters the reverb chain. Besides the filter type selection, we have controls for the filter frequency cutoff (labeled Freq), and the Resonance.

The filter acts like a regular synth filter (actually, it is the Multimode filter included in Pigments). With it we can cut frequencies above the selected frequency (Low Pass), below that same frequency (High Pass) or above and below simultaneously (Band Pass). The higher the slope chosen, the faster the filter closes, and the narrower the band of frequencies beyond the cutoff point that will pass.

*Intensity Pre-Filter Mode
Selection dialog*

Band Pass filters are good for things like simulating the old telephones, for example. Low Pass filters are good to filter out the noisy high end of a recording, or to make the overall sound mellower. High Pass filters can be used to cut out the lower frequencies that sometimes prevent us to raise the volume of the audio. It may also be used to cut some electric interferences by filtering out the frequencies where they happen.

Resonance is a special effect usually found in synth filters, that boosts the frequencies around the cutoff point. It may be used to add some brilliance to the sound after cutting off some high frequencies, for example.

Cutoff range goes from 20 Hz up to 20 kHz. By default it is positioned at 15 kHz.

Resonance range goes from 0.1 up to 15.0 (real Q value). Default is 0.707

Besides the automation possibilities, we can also modulate the Freq control using one of the two modulation sources available.

> ♪: We can modulate the Freq control (filter frequency cutoff), but not the Resonance control.

4.3.2. Post-Filter

Here's another creative element included in this reverb. This is another synth-like filter, but in this case it is positioned after the reverberation chain. Its output is routed to the Softclip to compensate gain loss after filtering. The filter acts after the reverb chain, but before the feedback.

This time we used a SEM-like State Variable Filter. The filter has a fixed slope of -12 dB per octave, and four possible configurations: Low Pass, High Pass, Band Pass, and Notch. Notch is a special configuration where a narrow band around the cutoff point is cut, leaving the frequencies above and below that narrow band unfiltered.

Modulating the frequency cutoff with the filter configured to Notch (or Band Pass) to make a sweep, you can get a "Woosh" effect, for example.
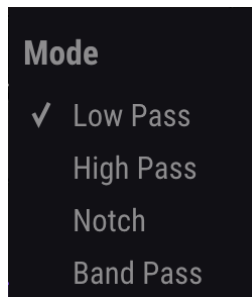

The Post-Filter section

Post-Filter may also be turned On or Off by pressing the Active button. The filter has three editing controls:

4.3.2.1. Mode

Mode is where you choose the filter configuration to be used. There are four options:

- **Low Pass** filters out frequencies above the cutoff point;
- **High Pass** filters out frequencies below the cutoff point;
- **Notch** filters out ONLY a narrow band of frequencies around the cutoff point, leaving all the other frequencies unfiltered;
- **Band Pass** filters out frequencies both above AND below the cutoff point, allowing only a narrow band of frequencies to pass.

*Intensity Post-Filter Mode
Selection dialog*

There is no default filter mode, but the initial value is Low Pass.

4.3.2.2. Cutoff

Cutoff is where we define the frequency where the filter starts to act. This filter has a fixed slope of -12 dB per octave, which we may classify as gentle.

Cutoff goes from 20 Hz to 20 kHz. Default is 18 kHz.

4.3.2.3. Resonance

Resonance is a special effect that boosts the frequencies around the cutoff point. It may be used to add some brilliance to the sound after cutting off some high frequencies, for example, or boosting the low frequencies after cutting the low end.

Resonance range goes from 0.00 up to 1.00. Default is 0.00 (no resonance).

> ♪: We can modulate the filter Cutoff and Resonance with the Envelope Follower and the Function Generator featured in the Advanced panel.

4.3.2.4. Softclip

This is where you compensate for gain loss after filtering. **Although it comes after the Post-Filter, the Softclip control is in the Main Control Panel**.

4.3.3. Envelope Follower

The envelope follower allows modulation of the selected parameters by an audio signal volume contour. The control signal can be the internal Input, or an external signal (coming from another track, for example).
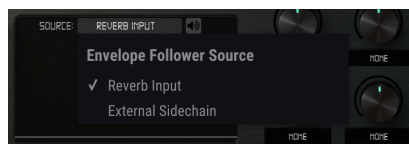

The Envelope Follower section

This section has many controls:

4.3.3.1. Source

The Envelope Follower can use either the internal audio input or an external side-chain input as source. By default, the envelope follower is controlled by the Input signal. To have the Envelope Follower controlled by an external audio source, you need to define and route that in your DAW. The method to create a side-chain routing varies according to the DAW in use, so please refer to your DAW manual or help to learn how to do this.

The audio signal will create a natural envelope that will be used (with the changes performed by the other controls in this section) to modulate the parameters chosen in the modulation destination box, which have their own modulation intensity controls too.

> ♪: The method to define an external side-chain signal to modulate a plug-in varies from DAW to DAW. Please refer to your own DAW manual to learn how to to do it.

The Envelope Follower source selector

4.3.3.2. Comp

This compressor has a constant ratio, and a threshold that goes from -60 dB up to 0 dB. A high compressed modulation signal will have less dynamic variation, therefore allowing a more stable modulation.

4.3.3.3. Gain

This is a very important control. Basically this is where we control the base modulation intensity we get from the modulation signal. It is a bipolar control, which means that we can also attenuate the signal volume, if we feel we are getting too much modulation.

The range goes from -36 dB to 36 dB, which gives a lot of flexibility. By default, the control value is 0, which means it doesn't affect the signal volume.

> ♪: The fact Gain is at 0 doesn't mean we don't get modulation from the Envelope Follower. It all depends of the original modulation signal volume.

4.3.3.4. Attack

Attack controls the speed at which the envelope follower modulation starts to act.

Values range from 0.001 second (one millisecond) up to 5.00 seconds.

Default is 0.020 (twenty milliseconds).

4.3.3.5. Release

Release controls the time it takes for the envelope follower modulation to stop.

Values range from 0.001 second (one millisecond) up to 5.00 seconds. These are the same as the Attack, but as a rule of thumb, Release speeds should be longer, otherwise they may have a quite noticeable effect on the audio.

Default is also 0.020 (twenty milliseconds).

4.3.3.6. Delay

This control applies a delay to the envelope follower output. It may be synced to host tempo.

When in Sync, Delay duration is displayed in music values (from 1 to 1/32) where 1 will mean a whole note (or a full 4/4 bar) and 1/32 will mean a thirty-second note. We also have dotted values and triplet values. When a value is dotted, it will show a *d* after the value. When the value is a triplet, it will show a *t* after the value.

Default value is *1/4* (one quarter note).

When Sync is disabled, the values are displayed in milliseconds (ms). In this case, delay duration goes from 0.00 ms up to 2000 ms (two seconds). Default is 0.00 ms (no delay).

Sync is activated by clicking the small eighth note positioned in the right side of the Delay control knob. This is a toggle button. When On, the envelope follower signal delay time is synced to host tempo. When Off, it will use absolute time values.

4.3.3.7. Modulation Destination

This box has four knobs with drop-down menus. Each one controls a modulation destination.

Therefore, we can have up to four modulation destinations active for the Function Generator. The destinations are chosen among the options presented in the menu displayed when we click in the drop-down area.

The knob controls the modulation intensity. It is a bipolar control (has positive and negative values) which means we can modulate a parameter in either way.

Values go from -1 up to 1. Default is O (no modulation).

4.3.4. Function Generator

The Function Generator is similar to the ones featured initially in Pigments. It is inspired by the modular west coast synthesis.

These type of modulators can behave in several ways. They can work as a cycled/looped envelope, they can also work as a kind of LFO, or they can work as pattern sequencers. It's this flexibility that gives function generators their charm, and the reason why we decided to include one in this reverb unit.

The Function Generator section

This is another section with several controls:

4.3.4.1. Function Selector

This is a drop-down menu below the small window that displays the selected function. Clicking it we have a selection of pre-programmed functions ready to be used. We can also save changes to we have done to any of them or save our own functions to use later.

4.3.4.2. Reset

This buttons reloads the stored values of the current function preset, which include the shape of the function and the rate speed.

4.3.4.3. Rate

Rate controls the function duration.

It can display durations in music values (from 8 to 1/32) where 8 will mean eight 4/4 bars (or eight whole notes) and 1/32 will mean a thirty-second note. We also have dotted values and triplet values. When a value is dotted, it will show a *d* after the value. When the value is a triplet, it will show a *t* after the value.

These values are displayed when the Sync button is On (sync is enabled). Default value is *1* (a full 4/4 bar or one whole note).

When Sync is disabled, the values are displayed in Hz. In this case, rate duration goes from 0.010 Hz up to 200 Hz. Default is 2.00 Hz.

> ♪: Each function preset will have its own rate stored as part of the preset.
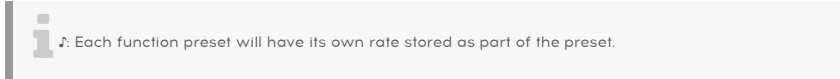
Once again, Sync is activated by clicking the small eighth note positioned in the right side of the Delay control knob. This is a toggle button. When On, the function generator time is synced to host tempo. When Off, it will use absolute time values.

4.3.4.4. Modulation Destination

This box has four knobs with drop-down menus. Each one controls a modulation destination.

Therefore, we can have up to four modulation destinations active for the Function Generator. The destinations are chosen among the options presented in the menu displayed when we click in the drop-down area.

The knob controls the modulation intensity. It is a bipolar control (has positive and negative values) which means we can modulate a parameter in either way.

Values go from -1 up to 1. Default is 0 (no modulation).

5. USER INTERFACE

The Rev Intensity User Interface has a Main Control Panel, an Advanced Mode Control Panel, and toolbars in the top and bottom of the window.

It is still a very simple User Interface. That will always be the main focus of every Arturia product: to unleash your creativity while remaining easy to use.

We already looked at the control panels. Now it's time to look at the toolbars.

5.1. The Upper Toolbar

The plug-in GUI (Graphical User Interface) has the usual Arturia toolbar that runs across the top edge, with the Arturia logo / plug-in name on the left (the colored part), followed by the Library button and the Preset name, with arrows to navigate through the different presets stored in the library.

After this, we have the button that gives access to the Advanced Mode control panel (a double arrow).

A dot is added next to this double arrow button whenever the Advanced Mode is active (i.e., when there are parameters set to non-default values) if that panel is not visible.

The Upper Toolbar

This upper toolbar, which is common to all current Arturia plug-ins, gives access to many important functions.

These can be found by clicking on the Arturia Rev Intensity button at the top left-hand corner of the plug-in window. Since these options are also common to all current Arturia plug-ins, they may be already familiar to you:

5.1.1. Save Preset

This option will overwrite the active preset with any changes you have made, so if you want to keep the source preset also, use the Save As option instead. See the next section for information about this.

5.1.2. Save Preset As...

If you select this option, you are presented with a window where you can enter information about the preset. In addition to naming it, you can enter the Author name, and select a Type. You can even create your own Type by entering custom names in the Type field. This information can be read by the preset browser and is useful when searching for the preset later.
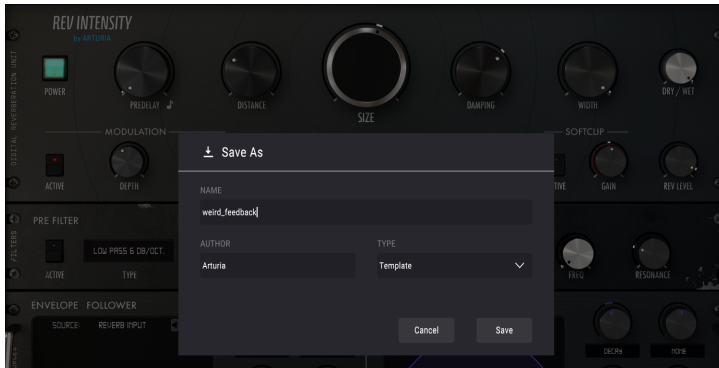
5.1.3. Import...

This command lets you import a preset file, which can be either a single preset or an entire bank of presets. Both types are stored in **.intensityx** format.

After selecting this option the default path to these files will appear in the window, but you can navigate to whichever folder you are using to store presets.

5.1.4. Export Menu

You can export presets in two ways: as a single preset, and as a bank.

- **Export Preset:** Exporting a single preset is handy when you want to share a preset with someone else. The default path to these files will appear in the "Save" window, but you can create a folder at another location if you like. The saved preset can be reloaded with the import preset menu option.

- **Export Bank:** This option can be used to export an entire bank of presets from the plug-in, which is useful for backing up or sharing presets.

5.1.5. Resize Window options

The Rev Intensity window can be resized from 50% to 200% of its original size without any visual artifacts. On a smaller screen such as a laptop, you might want to reduce the interface size so it doesn't dominate the display. On a larger screen or a second monitor, you can increase the size to get a better view of the controls. The controls work the same at any zoom level, but they can be harder to see at the smaller magnification values, or when using high resolution monitors (like HD monitors or higher). The higher the resolution, the bigger the size that should be used.

> ♪: You can also Zoom In or Zoom Out by using the key combinations "Ctrl/Cmd" and numeric "+" (for Zoom In) or "Ctrl/Cmd" and numeric "-" (for Zoom Out).

5.1.6. Help

The Help section in this menu allows direct access to the User Manual (the document you are reading), as well as to the FAQ (Frequently Asked Questions).

5.1.7. Preset Selection

The Preset browser [p.34] can be opened by clicking the library symbol on the toolbar. The filter, name field and left / right arrows in the toolbar all assist with preset selection.

Selecting a preset is performed by clicking the preset name field in the Upper Toolbar. That action will open a list with all the presets available. The currently selected preset is marked with a √. Then simply place the mouse over the name of the preset you want to select (the preset name will be highlighted), and click it.

Alternatively, you may use the Preset Forward and Backward arrows (the arrows at the right of the preset name field) to navigate through all the presets.
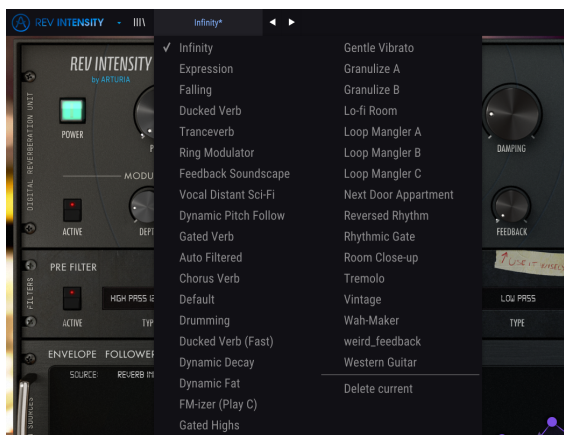
5.2. Advanced Mode (Double Arrow) Button

This button opens the Advanced Mode control panel. This is where the controls are located for the extra features Arturia added to expand the possibilities regularly found on these units.

When the Advanced Mode panel is opened, the arrows point up. When the panel is closed, the arrows point down.

When there are parameters active in the Advanced Mode panel (edited or set to values different than the defaults), and that panel is not visible (i.e., closed), the double arrow button (pointing down) has a dot next to it to call your attention to those parameters. To check them, click the button to open the Advanced Mode control panel.

There's a detailed explanation of all the features in this Advanced Mode in the Control Panel chapter [p.11].

5.3. The Lower Toolbar

When you hover the mouse over a parameter control, you will see a readout showing that parameter name and a brief description of it in the left part of the lower toolbar.

Also, you will notice that a small popup window will show up at the side of the parameter control, displaying the current value of the parameter. This will also show the value changes when you move the control (edit the parameter). This is handy, because you don't need to touch the parameter control to read the current value, and also you may keep looking at the parameter while you read the value changes.


The Lower Toolbar

At the right-hand side of the lower toolbar are several small windows and buttons. These are very important features, so let's take a closer look.

5.3.1. Size Inertia

This parameter affects the reactivity of the Size knob, so when modulating this parameter at High or Low rates, the size react differently and allows for different sound.

If you modulate the Size parameter at a fast rate, depending on the Inertia setting, the Size will vary faster or slower, thus having a different audible result. Let's say that the Size knob is more or less easy or fast to turn depending on the Inertia parameter. High Inertia means the knob is less reactive or more sticky.
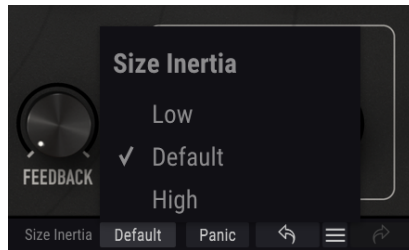

5.3.2. Panic

The Rev Intensity has a Panic button. This button allows you to "kill" the reverb in case something goes wrong; for example, if the decay time of the reverb is too long and you want it to stop immediately and then adjust it.

5.3.3. Undo

The Undo button is a curved arrow pointing to the left. This button reverts the last edit you performed. If it is clicked repeatedly it will revert the parameter changes in the order they were performed in the session, from the latest ones to the earliest ones.

5.3.4. History

This button lists all the parameter changes performed in the current session.
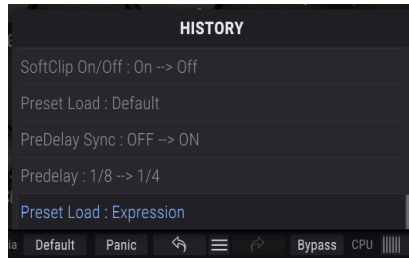
Intensity Undo History

5.3.5. Redo

The Redo button is a curved arrow pointing to the right. This button works exactly the opposite way of the Undo button. It will reinstate the last undone edit. If it is clicked repeatedly it will reinstate the parameter changes in the order they were undone (the latest undone ones first).

5.3.6. Bypass

This one is obvious. Activating the bypass option will completely disable the Rev Intensity plug-in. This action may also be performed by the Power switch.

5.3.7. CPU meter

The CPU meter is used to monitor how much of your computer's CPU is being used by the plug-in. If you stress your computer too much, the global performance of your system and the audio may suffer.

5.4. The Preset browser

The preset browser enables you to search, load and manage preset configurations in Rev Intensity. Although this looks and is based on the usual Arturia Preset Browser, it is simpler, and even easier to work with. You access the preset browser by clicking on the library symbol next to the Arturia logo/plug-in name on the left.
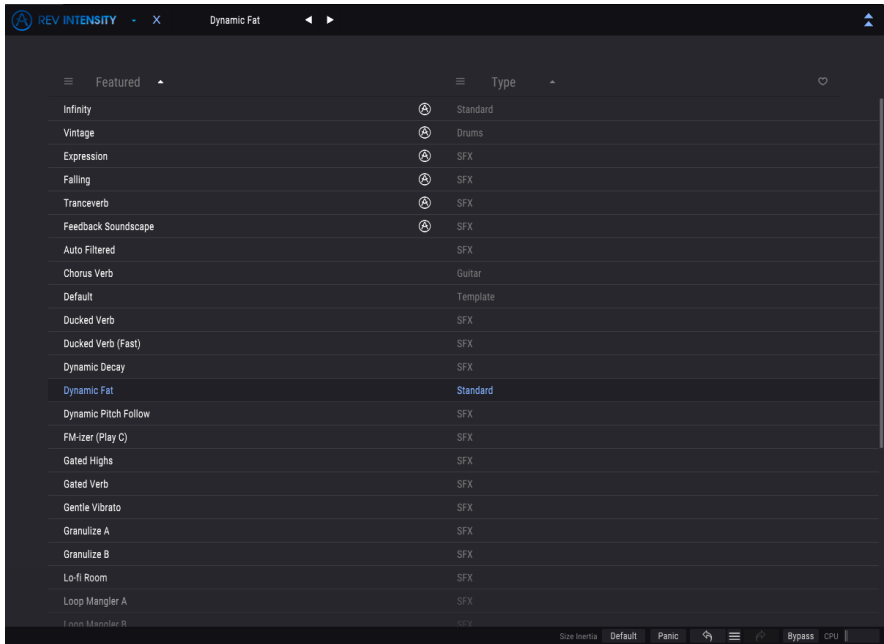
When you click on the library symbol, you will see a screen with all the Presets you have saved. You can sort the list by several different criteria to make it easier to find the right preset. There are two columns: The first one can list the Presets by Name or by "Featured". The Featured presets were selected as important by Arturia. The second one lists the Presets by Type or by Designer.

There is only one attribute visible, which is the one you select by clicking the column title. By default, Type is the attribute selected. When you select the Designer attribute the list changes, and that attribute replaces the Type field in the second column.

If you want to delete a preset, first select it in the browser list. Next, click in the name field at the top to open the list of presets. Then choose the option "Delete current" at the bottom of the list, and confirm the action in the pop-up window.
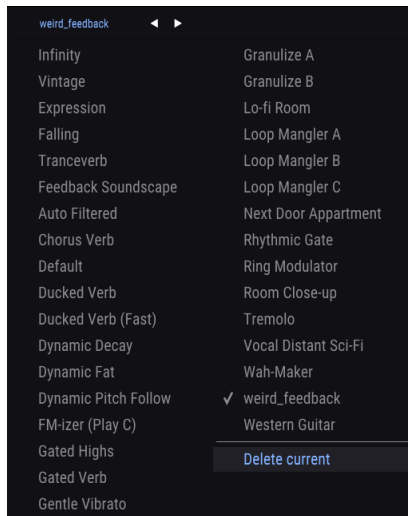
*Preparing to delete a Preset from the Rev
Intensity library*

5.5. Fine-tuning parameters

Usually, to change values in the plug-in controls, just click on the corresponding control and drag the mouse up or down. If the controls are switches, simply click them to toggle On or Off.

If you want finer editing values, you can use Ctrl+Drag (Cmd+Drag for macOS). Alternatively, you can Right-Click and Drag. With this technique the values change more slowly, which enables you to edit the values with greater precision.

5.6. Resetting your controls

Double-clicking a control changes it automatically to the default value. This also works with Alt+Click (Opt+Click for macOS).

And that's it. We just finished describing all the controls you have at your disposal to process sound in your DAW using the Rev Intensity plug-in. We hope you'll enjoy your new plug-in (and the results you get with it!) as much as we enjoyed making it.

6. SOFTWARE LICENSE AGREEMENT

In consideration of payment of the Licensee fee, which is a portion of the price you paid, Arturia, as Licensor, grants to you (hereinafter termed "Licensee") a nonexclusive right to use this copy of the Analog Lab Lite Software (hereinafter the "SOFTWARE").

All intellectual property rights in the software belong to Arturia SA (hereinafter: "Arturia"). Arturia permits you only to copy, download, install and use the software in accordance with the terms and conditions of this Agreement.

The product contains product activation for protection against unlawful copying. The OEM software can be used only following registration.

Internet access is required for the activation process. The terms and conditions for use of the software by you, the end-user, appear below. By installing the software on your computer you agree to these terms and conditions. Please read the following text carefully in its entirety. If you do not approve these terms and conditions, you must not install this software. In this event give the product back to where you have purchased it (including all written material, the complete undamaged packing as well as the enclosed hardware) immediately but at the latest within 30 days in return for a refund of the purchase price.

1. Software Ownership Arturia shall retain full and complete title to the SOFTWARE recorded on the enclosed disks and all subsequent copies of the SOFTWARE, regardless of the media or form on or in which the original disks or copies may exist. The License is not a sale of the original SOFTWARE.

2. Grant of License Arturia grants you a non-exclusive license for the use of the software according to the terms and conditions of this Agreement. You may not lease, loan or sub-license the software.
The use of the software within a network is illegal where there is the possibility of a contemporaneous multiple use of the program.
You are entitled to prepare a backup copy of the software which will not be used for purposes other than storage purposes.
You shall have no further right or interest to use the software other than the limited rights as specified in this Agreement. Arturia reserves all rights not expressly granted.

3. Activation of the Software Arturia may use a compulsory activation of the software and a compulsory registration of the OEM software for license control to protect the software against unlawful copying. If you do not accept the terms and conditions of this Agreement, the software will not work.
In such a case the product including the software may only be returned within 30 days following acquisition of the product. Upon return a claim according to § 11 shall not apply.

4. Support, Upgrades and Updates after Product Registration You can only receive support, upgrades and updates following the personal product registration. Support is provided only for the current version and for the previous version during one year after publication of the new version. Arturia can modify and partly or completely adjust the nature of the support (hotline, forum on the website etc.), upgrades and updates at any time.
The product registration is possible during the activation process or at any time later through the Internet. In such a process you are asked to agree to the storage and use of your personal data (name, address, contact, email-address, and license data) for the purposes specified above. Arturia may also forward these data to engaged third parties, in particular distributors, for support purposes and for the verification of the upgrade or update right.

5. No Unbundling The software usually contains a variety of different files which in its configuration ensure the complete functionality of the software. The software may be used as one product only. It is not required that you use or install all components of the software. You must not arrange components of the software in a new way and develop a modified version of the software or a new product as a result. The configuration of the software may not be modified for the purpose of distribution, assignment or resale.

6. Assignment of Rights You may assign all your rights to use the software to another person subject to the conditions that (a) you assign to this other person (i) this Agreement and (ii) the software or hardware provided with the software, packed or preinstalled thereon, including all copies, upgrades, updates, backup copies and previous versions, which granted a right to an update or upgrade on this software, (b) you do not retain upgrades, updates, backup copies und previous versions of this software and (c) the recipient accepts the terms and conditions of this Agreement as well as other regulations pursuant to which you acquired a valid software license.
A return of the product due to a failure to accept the terms and conditions of this Agreement, e.g. the product activation, shall not be possible following the assignment of rights.

7. Upgrades and Updates You must have a valid license for the previous or more inferior version of the software in order to be allowed to use an upgrade or update for the software. Upon transferring this previous or more inferior version of the software to third parties the right to use the upgrade or update of the software shall expire.
The acquisition of an upgrade or update does not in itself confer any right to use the software.
The right of support for the previous or inferior version of the software expires upon the installation of an upgrade or update.

8. Limited Warranty Arturia warrants that the disks on which the software is furnished is free from defects in materials and workmanship under normal use for a period of thirty (30) days from the date of purchase. Your receipt shall be evidence of the date of purchase. Any implied warranties on the software are limited to thirty (30) days from the date of purchase. Some states do not allow limitations on duration of an implied warranty, so the above limitation may not apply to you. All programs and accompanying materials are provided "as is" without warranty of any kind. The complete risk as to the quality and performance of the programs is with you. Should the program prove defective, you assume the entire cost of all necessary servicing, repair or correction.

9. Remedies Arturia's entire liability and your exclusive remedy shall be at Arturia's option either (a) return of the purchase price or (b) replacement of the disk that does not meet the Limited Warranty and which is returned to Arturia with a copy of your receipt. This limited Warranty is void if failure of the software has resulted from accident, abuse, modification, or misapplication. Any replacement software will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer.

10. No other Warranties The above warranties are in lieu of all other warranties, expressed or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. No oral or written information or advice given by Arturia, its dealers, distributors, agents or employees shall create a warranty or in any way increase the scope of this limited warranty.

11. No Liability for Consequential Damages Neither Arturia nor anyone else involved in the creation, production, or delivery of this product shall be liable for any direct, indirect, consequential, or incidental damages arising out of the use of, or inability to use this product (including without limitation, damages for loss of business profits, business interruption, loss of business information and the like) even if Arturia was previously advised of the possibility of such damages. Some states do not allow limitations on the length of an implied warranty or the exclusion or limitation of incidental or Oconsequential damages, so the above limitation or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.