USER MANUAL

REV SPRING 636

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Special Thanks

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Thank you for purchasing Arturia's Rev Spring-636!

This manual covers the features and operation of the Rev Spring-636.

Be sure to register your software as soon as possible! When you purchased Rev Spring-636 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 Spring-636

Since the late 1990s, Arturia has received acclaim from players and reviewers alike for designing state-of-the-art software emulations of the venerable analog synthesizers from the 1960s to the 1980s. From the Modular V, back in 2004, to Origin, a modular system that was introduced in 2010, to the Matrix 12 V (2015), the Synclavier V (2016), the Buchla Easel V and the DX7 V (2018), and most recently the Synthi V, the CZ V, and the Mellotron V. Last but not least, we also have to mention Pigments, our first original software synthesizer, featuring multiple synth engines and a creative-inviting GUI.

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 Spring-636 is one of the three reverb plug-ins included in the current bundle, and benefits from Arturia's decade-long experience in recreating the most iconic tools of the past.

ARTURIA has a passion for excellence and accuracy. This led us to conduct an extensive analysis of every aspect of the Grampian 636 spring reverb. Not only have we modeled the sound and behavior of this unique reverb unit, we have added several features that were unimaginable in the days the original Grampian 636 was being manufactured.

Rev Spring-636 runs as a plug-in in all major formats inside your DAW.

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The Arturia team

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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 give us the perception of that 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, still allowing some reflections 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.

So instead of reproducing any kind of natural acoustic reverberation, they created their own "sound signature reverberation." These sounded great to the ears of musicians and listeners, so much so that even today, when the accurate emulation of acoustic spaces is possible, we still want those artificial sound signatures in some cases.

Rev Spring-636 Main Reverb Controls

1.2. What is a Spring Reverb?

The original method for adding reverb to a recorded sound was to place a loudspeaker in a room, play the original sound through it, and rerecord the reverberated sound.

Sometime later, mechanical devices were invented that were able to create sound reflections similar to the acoustic reflections of a room. Historically, there have been two kinds of mechanical reverberation units: Plates and Spring Reverbs.

Springs have a number of qualities that contribute to their unique sound. The main characteristic of a spring reverb is its "bouncy" quality. This is due to the timing between echoes, because to create each reflection the wave needs to travel the whole length of the spring.

As we can see, the actual operation is relatively simple: the audio signal is captured by a transducer, sent to one end of the spring (or several springs), and in this way creates a wave that travels through the spring length. When the wave arrives at an end of the spring, part of the wave's energy is reflected and stays in the spring. It is these reflections that create the characteristic sound of a spring reverb. At the other end of the spring, there is another transducer that converts some of the motion in the spring into an electrical signal.

1.3. Where have spring reverbs been used?

Reverbs are used mainly to add ambience. Naturally, we could think that the aim would be to simulate some kind of acoustic space, and sometimes it is. But there is also a more creative approach, which is simply to add an extra dimension to the sound, without trying to imitate any kind of space in particular.

Spring reverbs provided a relatively simple and inexpensive method for creating reverberation effects. The Hammond Organ Company was the first to include a compact spring reverb effect in their line of organs. The design was so successful it was released as a separate piece of hardware, through a company specially created to commercialize it: Accusonics.

Leo Fender was one of the first customers of Hammond, having installed spring reverbs in his guitar amplifiers. The first Accusonics spring tank was included in the 1963 Fender Vibroverb amp. The spring reverbs used in guitar amplifiers are usually enclosed in a metal box, called the reverb pan, which is attached to the bottom of the amp.

For electric guitars they became almost an obligatory effect, perhaps because they were added to guitar combos at a very early stage. Here they might even be used alone, or in combination with other effects. Sometimes they doubled as a distortion unit, which the Rev Spring-636 plug-in can also do.

Spring reverbs are completely artificial; they will not "simulate" an acoustic space. But they are great to mix with other reverbs, even natural reverb. For example, a richer sound can be achieved on vocals and drums by combining natural reverb with a spring reverb. No matter what sort of space simulator you prefer, adding that "extra dimension" from a spring reverb can help complete the sound.

Keyboards and synthesizers can also greatly benefit from the artificial ambience of springs. Famous synthesizers like the Synthi-A and the ARP 2600 even included spring reverb units built-in.

Although old technology, spring reverbs are still in use today. They can be found in many top studios with a defined and recognizable sound character, such as Sound City in L.A. and Thump Studio in New York. The model on which this plug-in is based is still a legend, due to its rarity and aura. It is often associated with various musical styles, including dub and electronica.

Rev Spring-636 showing all the controls available

2. ACTIVATION AND FIRST START

The Arturia Rev Spring-636 plug-in works on computers equipped with:

Windows 7 or later and macOS 10.10 or later.

You can use the Rev Spring-636 plug-in as an Audio Unit, AAX, VST2 or VST3 plug-in (64-bit only).

2.1. Activate the Arturia Rev Spring-636 license

Once the software has been installed, the next step is 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/downloads&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 Spring-636 is ready to be used in all major digital audio workstations (DAWs), including Live, Logic, Cubase, Pro Tools and others. Unlike what happens with hardware, you can load as many instances of Rev Spring-636 as you find useful. Rev Spring-636 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.

The Main Rev Spring-636 Controls

3. REV SPRING-636 OVERVIEW

3.1. Arturia's Rev Spring-636 plug-in

Our goal has been to emulate the most revered hardware of the past and make them available to the world. That's why we chose one of the most renowned spring reverb units that ever existed.

Of course, being an Arturia product, we have pushed the envelope, adding some tasteful new features that honor the original while making it more useful in a modern context.

Arturia Rev Spring-636 Main and Advanced control panels

Nevertheless, we wanted to keep the simplicity of the original spring reverbs. Our aim is always to keep things as simple as possible.

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

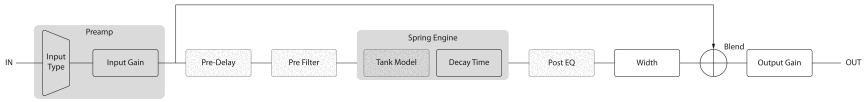
The Main Panel has the controls for the "traditional" spring reverb, as well as a couple of extras.

But we also included several more substantial features. These appear in a separate "Advanced" panel that opens below the main panel. Here you will find things like Pre Delay, Pre Filter, several tank options, and EQ.

We will take a detailed look at all of these things in the Control Panel chapter [p.11]. Now, it's time to check out how it sounds. Let's go!

3.2. Understanding the Rev Spring-636 Signal Flow

The Rev Spring-636 has some extra features, not usually found in a spring reverb, that can enrich the processor and give the user an extra dose of versatility. The signal flow reflects that:



As the signal enters the plug-in, it is sent through the preamp distortion drive circuit, and then split into two audio signals:

1. The "dry" path, which is sent without any further processing to a mixer just before the reverb output;
2. The "reverberated" signal path.

The reverberated signal is then sent through the Pre Delay and the Pre Filter. These are two of the extra modules that can be found in the Advanced Control Panel.

After this stage, the signal enters the Spring Reverb Engine. This is the "heart" of the processor, and there the audio will be processed by the chosen "Spring Tank" model (as selected in the Advanced Control Panel), while the reverb tail duration will be controlled by the Decay Time.

Next stage for the reverb signal is the EQ module, where some EQ can be applied.

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

Last stage is the mixing between the "dry" signal and the "reverberated" signal, controlled by the Blend knob.

Finally, the mixed signal will be sent out, with the final gain controlled by the Output knob.

This is the complete signal flow of the Rev Spring-636. It may seem a bit overwhelming, but spend some time with it and we're sure you'll gain a deep understanding of how the compressor works.

3.3. Getting hands-on with Rev Spring-636

3.3.1. Reverb Basics

To get an idea of Rev Spring-636'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 Spring-636 as an insert in that track. Open the Rev Spring-636 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 a slight amount of reverb added. You can change the amount of reverb by simply turning the Blend knob left or right. By default this control is positioned at the center (0.500), which means it will mix 50% of Preamp signal with 50% Reverb signal. Turning the knob fully to the right provides 100% Reverb, while 100% to the Left provides 100% Preamp. The Preamp is an extra feature of this reverb;
- Now let's try some heavier processing, just to get a feel for the main features of the Rev Spring-636. First of all, raise the Input. You'll notice some distortion being added to the sound. That's the preamp effect. The Input control is mainly there to overload the signal of the Preamp and introduce distortion. This is one of the characteristics of the original unit, which led to it being used sometimes as a distortion unit;
- You will also notice that when you turn up the Input knob, the Output knob moves in the opposite direction. This is because they are linked;
- Now try to move the Output independently. This will cause it to be unlinked from the Input (the link switch changes position). Link mode only works from the Input to the Output. It will allow you to try different distortion (overload) amounts, without fear of blowing up your speakers;
- Since we messed with the Input and Output, it's time to check the Blend control. This control allows you to mix between the overdriven signal and the reverberated signal. It can also act as a Dry/Wet control. By default, it is positioned at 50%. If the Input control is at 0 (its default position) you will have a blend of half-Dry/half-Wet signal (with no distortion). Keeping the Input at 0 and turning the Blend control fully to the Preamp position will give you a Dry signal. Turning it fully to the Reverb position will give you a Wet signal. In the Dry position, by raising the Input control, you can use the plug-in exclusively as a distortion unit;
- While the audio plays, try changing the Input stages. The plug-in allows you to choose between Mic (the default) and Aux mode. Pressing each button will change the character of the sound slightly;
- Now, it's time to check the Decay knob. This knob controls the reverb time. The longer the Decay, the longer the reverb tail will sound. By default it is positioned at full right (the longest reverb tail the plug-in can get). Try shortening this by turning the knob to the right. You'll notice that the reverb tail becomes shorter;
- Finally, it's time to try the Width knob. This is a control that's only present when the plug-in is instantiated in Stereo tracks. It only affects the reverb signal; it doesn't touch the Dry signal. 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 stereo image "shrinks" until it becomes mono. As this will only affect 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.

Rev Spring-636 set to add some reverb to a track

3.3.2. Advanced methods of using the plug-in

Now that you have a feeling for the Rev Spring-636 basics, let's go a little deeper.

- Click the double downward facing arrows to open the "Advanced" panel;
- Now, let's try the Pre Delay Control. By default, the control is positioned in the 0.00 ms position (all way to the left). This control delays the wet signal, allowing you to create a perception of closeness to the source. Raising it a little will add depth, dimension and lushness to the reverb;
- The next section is the Pre Filter. This one is a very detailed synth resonant filter, with controls for the Cutoff, Resonance, and several slope and configuration modes. The filter is a great tool for sculpting the sound. With it you may remove low frequencies while boosting the frequencies around the cutoff point, or do the same with high frequencies. Experiment with this for a while. Don't be afraid to try it with extreme values, and added resonance;
- After the Pre Filter comes something very important: the Tank section. The tank was an inner aluminum "cabinet" that housed the spring reverb components (the springs - usually two or three - and the transducers). By selecting different tank models, you can change the character of the reverb sound;
- When you are done, try the Post Equalizer. This is a single, fully parametric EQ band with two filters added. But since the EQ band goes from 80 Hz to 12 kHz, and the filters can cover the entire spectrum (the HPF goes from 20 Hz to 1.2 kHz, while the LPF starts at 1.2 kHz and goes up to 20 kHz), this a surprisingly versatile EQ with great audio sculpting capabilities.

4. REV SPRING-636 CONTROL PANEL

The Rev Spring-636 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.

> ♪: 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 Mono and Stereo configurations consists of just one parameter element: Width. Width controls the wideness of the stereo field. When at 100% it does not impact in the stereo image. When at 0%, the reverb signal becomes mono. 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 Spring-636 inserted in a mono track. Notice the absence of the Width control

4.2. Main Control Panel

The Rev Spring-636 Graphical User Interface offers just a few controls, since spring reverbs are very simple units with very few controls too. Those are located in the Main Control Panel, which is the one that opens by default when we launch the plug-in.

In addition to these Arturia included several advanced features that were not present in the original unit, some that were unimaginable when the hardware version was originally launched. These new features 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, 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 the User Interface chapter [p.21].

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 Spring-636 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 (Switch)

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.

The Power Switch

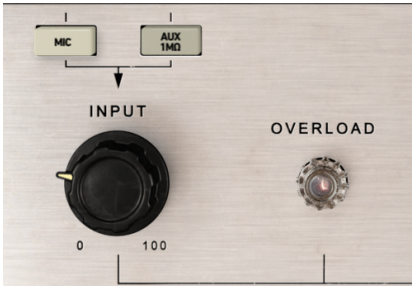
It does exactly the same thing as the Bypass button in the Lower Toolbar. Notice that, in both cases, the GUI changes color when the plug-in is bypassed (becoming darker), and the word "Bypassed" appears briefly.

4.2.2. Input

This is a very important control of the unit. It is associated with the two buttons above it, labeled "Mic" and "Aux 1MΩ". These buttons activate different input models, which will affect the input sound of the main control of the unit. The choice will have an effect in the way the preamp will act, especially if you overdrive it (this plug-in can also act like a distortion unit). The higher the gain, the higher the distortion (the lamp starts to lit when the wet sound is overdriven).

Input range goes from O dB to +6O dB. By default, it is positioned at O dB.

This is the parameter that controls how much audio will feed the reverberation circuit. Even at O dB, we will have enough to get reverb. The gain should be used only when we want to get distortion by overloading the circuit.



Rev Spring-636 Input control and Overload indicator

You can get a really heavy distortion with this control. However, if you just want a clean spring reverberation, you should leave the signal at O dB.

♪: Input control acts mainly to get distortion. If that's not what you want to achieve, use it carefully. Most of the time you will not need to raise the Input gain to get reverb.

Usually it is better to start with the Input and Output linked (the default behavior), while raising the Input, listening to the added distortion. If you don't like it, or feel you don't need that effect, you can leave the control at its default position, since it will not affect the reverberation effect.

In case you decide to get some added distortion, but you want a higher output level, you can still raise the Output level. As soon as you touch that control, it will become unlinked. Then you can adjust the Output level independently to find the optimal level.

4.2.3. Decay

This control is where we set the reverb time. The longer the Decay, the longer the reverb tails will be.

Decay ranges go from Short (0.00) with the control positioned fully to the left, to Long (1.00) with the control positioned fully to the right.

Rev Spring-636 Decay Control

By default, the selected position is Long, which achieves the longer reverb decay.

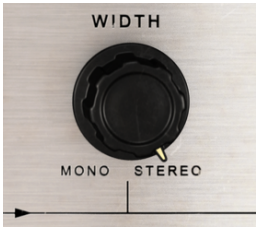
This control didn't exist in the original. It was added for extra flexibility, something that users of the real one could only dream of. If you want to achieve the modeled behavior, you have to leave the control at the Long position.

Try this control extensively to find the best decay time for the ambience effect you want to achieve. Beware though that decay time changes are only effective when the knob is released.

> ♪: Decay time changes are only effective when the knob is released. So, don't expect to hear changes while you are editing this control.

4.2.4. Width (Stereo Width)

Width is a control that didn't exist in the original unit. It controls the wideness of the stereo field. 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". This control only acts on the wet (reverberated) signal, leaving the dry signal untouched.



Rev Spring-636 Width control

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 is only present in stereo channels. When the plug-in is instantiated in mono channels, this control will not be present.

4.2.5. Blend

In the real hardware unit the preamped signal is always present. So we can say that the output signal is always Wet. We decided to add another extra level of control, again seeking to give you an extra dose of versatility, and called it Blend.

Blend is more than a Dry/Wet control. It works in a similar way except that, instead of blending between the Dry and Wet signal, it blends between the signal from the Preamp (with or without added overload distortion, depending on the settings of this control) and the reverberated signal. So, Blend is a mix control between the preamped signal and reverberated signal.

The Blend knob is set by default at the middle position, where it mixes the Preamp and Reverb signal 50/50, which means both signals are "blended" at the output of the plug-in. We can turn it all the way to the left, which is labeled Preamp (meaning only the preamped signal is present), all the way to the right, which is labeled Reverb (meaning only the reverberated signal is present), or anything in between. Values are displayed between 0.000 and 1.000, where the first value means all preamp and no reverb, and the second value means all reverb and no preamp.

If the Input control is set to 0, Blend will act as a Dry/Wet control.

Rev Spring-636 Blend and Output controls (the Output is shown unlinked)

4.2.6. Link

The Link switch connects Output control to the Input control. It is a toggle switch, which is On by default. The control is labeled with a picture of a chain.

When Link is On, each time we move the Input control, the Output control moves in the opposite direction. Since the distortion is program dependent, we may be tempted to drive the signal really hot. This way we can raise the Input value (and distortion) without the risk of raising the volume too much.

We can always move the Output independently, since the link only works from the Input to the Output, and not the other way. Therefore, after we find the ideal Input level to achieve the desired distortion, we can then check for the right Output gain without changing the Input.

If we turn Off this control, both Input and Output can be changed independently. It will switch Off automatically as soon as we touch the Output control.

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 add-ons, that bring a lot of extra power and flexibility to the reverb.

Rev Spring-636 Advanced Mode Control Panel

4.3.1. Pre Delay

Pre Delay, as the name implies, adds an amount of delay to the sound before the audio enters the reverb circuit (after the preamp stage). This works as a way to simulate a closer or greater distance 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.

By default, the Pre Delay is set to 0.00 ms (Off position).

4.3.2. Pre Filter

Pre Filter affects the audio that goes into the reverb circuit stage (after the preamp stage). You may look at it pretty much as a synth filter. It has several slope and filter cutoff configurations (Low Pass, High Pass and Band Pass), each with slopes of -6 dB per octave, -12 dB per octave, and -24 dB per octave. Add to that a variable filter cutoff point and resonance amount, and we have a complete multi-mode synth filter. The filter type can be selected through a drop-down menu in the upper part of the section window.

The section also has a switch to turn it On or Off. This way, we can quickly check how the filter is affecting the overall sound.

Rev Spring-636 Pre Filter section controls. Active switch shows the section is Off

There are two other controls: One for the frequency Cutoff, and another for Resonance amount.

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

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

♪: Pre Delay and Pre Filter have no effect on the audio before it enters the reverb circuit. Therefore, if the Blend control is set to Preamp, neither the Delay nor the Filter will have any effect in the audio.

4.3.3. Tank

The Tank section has a series of buttons, each one selecting a different tank configuration. In the original spring reverb units, the tank was an inner aluminum "cabinet" that housed the spring reverb components (the springs - usually two or three - and the transducers). The use of multiple transmission (reverberating) springs housed in a tank with different delay times allowed the simulation of a more natural ambience, as well as improving the overall frequency response of the reverb.

This tank was then connected to the outer chassis by four more small springs.

The characteristics of the tank and how the springs were mounted inside it had a strong influence in the final sound of the reverberation. That's why we included several options of tanks, to allow you to choose which one fits best to the overall reverb sound you want to achieve.

Tank selector section in the Advanced Panel

Besides the original unit's Gibbs tank, we added seven other models: various vintage and modern Accutronics tanks, an alternate vintage Gibbs tank, as well as two special tanks: the Synthi-A spring reverb tank, and the Space Echo reverb tank. All in all, these allow for an extra degree of versatility.

Feel free to experiment with each modeled tank. You'll be surprised on how much the sound character can vary with each model.

4.3.4. Post Equalizer

An equalizer is a bank of filters that allows us to sculpt the signal by boosting or cutting specific bands of frequencies.

The EQ included in this reverb unit is a single band EQ (fully parametric), with adjustable Gain, Frequency and Q (bandwidth), complemented by a Low Pass Filter and a High Pass Filter.

The Rev Spring-636 Equalizer turned On

The High Pass Filter has a fixed slope of -12dB/Octave, and a selectable continuous frequency ranging from 20 Hz to 1.2 kHz. By default it is Off (the knob is positioned at the far left, which turns the filter Off). You can confirm whether the filter is Off (or at which frequency it is acting on) by hovering the mouse over the control.

The Low Pass Filter also has a fixed slope of -12dB/Octave, and a selectable continuous frequency ranging from 1.2 kHz to 20 kHz); By default it is also Off (the knob is positioned at the far right, which turns the filter Off). Again, you can confirm whether the filter is Off (or at which frequency it is acting on) by hovering the mouse over the control.

> ♪: Notice that both filters have a wide range of frequencies, and that the HPF can be set to cut exactly at the same frequency of the LPF. If you do that, they will form a Band-Pass Filter.

The EQ band has three controls: one for the center Frequency, another for the Gain, and finally a third control for the bandwidth (Q). Frequency control goes from 30 Hz to 16 kHz, and defaults to around 700 Hz. Gain goes from -12 dB to +12 dB, and defaults to 0. The bandwidth is variable, and dependent on the gain applied - the more gain is applied, the narrower the bandwidth becomes.

The entire EQ section can be turned On or Off by clicking the switch labeled On above the main controls. When the EQ is active the On button becomes lit. By default, it is Off.

5. USER INTERFACE

The Rev Spring-636 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.

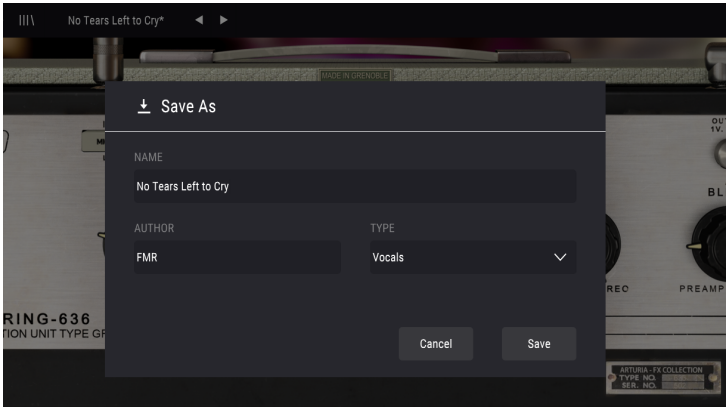
These can be found by clicking on the Arturia Rev Spring-636 button at the top left-hand corner of the plug-in window. Since these options are also common to all current Arturia plug-ins, they may be already familiar to you:

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 **.springx** 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 Spring-636 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" and numeric "+" (for Zoom In) or "Ctrl" and numeric "-" (for Zoom Out). In macOS, instead of "Ctrl" use the "Cmd" key.

5.1.6. Help

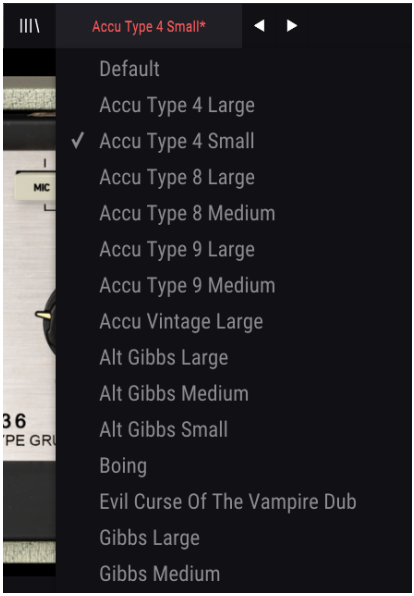
The Help section in this menu allows direct access to the User Manual (the document you are reading), as well as to the FAQ (Frequently Asked Questions).

5.1.7. Preset Selection

The Preset browser [p.26] 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 are located the controls for the extra features added by Arturia to expand the possibilities found on the original units. This extra control panel is common to all three reverbs.

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.

A detailed explanation of the Advanced Mode features is available 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. Panic

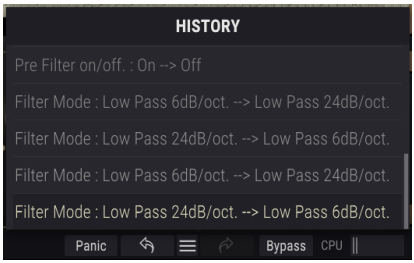
The Rev Spring-636 has a Panic button. This button allows you to "kill" the reverb in case something goes wrong; for example, if the decay time of the reverb is too long and you want it to stop immediately and then adjust it.

5.3.2. 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.

5.3.3. History

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



Rev Spring-636 Undo History

5.3.4. 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).

5.3.5. Bypass

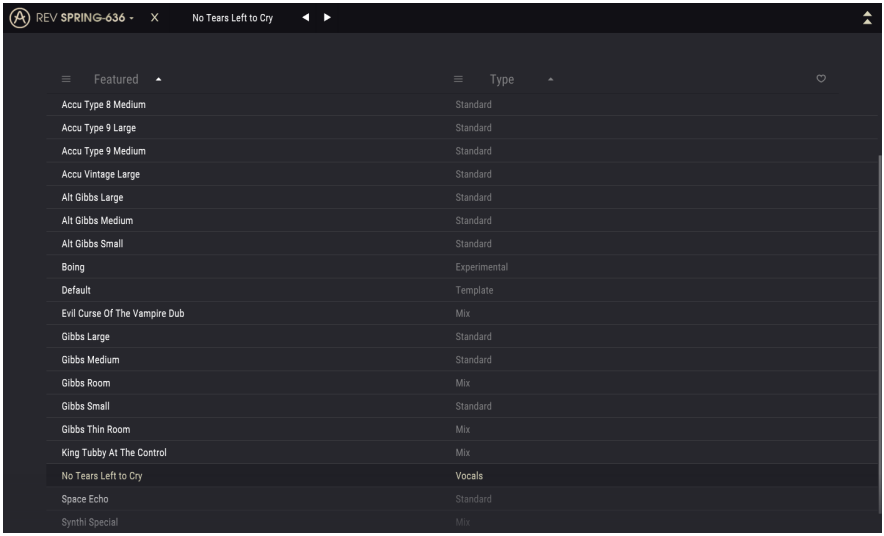
This one is obvious. Activating the bypass option will completely disable Rev Plate-140 plug-in. This action may also be performed by the Power switch.

5.3.6. 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

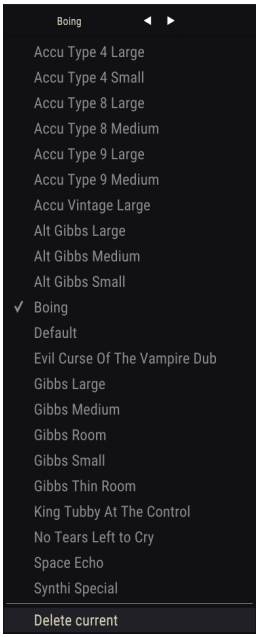
The preset browser enables you to search, load and manage preset configurations in Rev Spring-636. Although this looks and is based on the usual Arturia Preset Browser, it is simpler and even easier to work with. You access the preset browser by clicking on the library symbol next to the Arturia logo/plug-in 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 Spring-636 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 in 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 Spring-636 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.

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