

# Dual Tube Driven Springs- Depth Xpander & JVC Nivico



**IMPORTANT:** Even if you don't feel like looking at this whole manual, here are some areas I've highlighted that you really need to check out to get the full potential out of these programs.

**1. Lite and Full versions**

**2. BE CAREFUL WITH THE FEEDBACK**

**3. All of these programs are set up to use as 'sends'**

## **General Info**

Two tube-driven spring reverb units (pics on last page) were extensively sampled for this library. The first has a degree of notoriety (I'm calling it "Depth Xpander") and was marketed for use in home stereo systems, and people even had them in their cars, to apply some reverb to the music they played on their system. It's mono and is said to have been used by King Tubby in his dub mixes. The unit itself is really just a tube amp for driving a spring tank. The second unit (a JVC Nivico) was aimed at the same market, but actually contains the springs inside the case, with the tube amp. This one is stereo.

There are skins for both N3 and N4. The Depth Xpander has the main reverb, and 4 'bionic' reverbs, which were made using a sampling technique I've been using for years now- playing/recording the sampling tones at faster and slower, which results in shorter or longer reverbs, with their frequency responses shifted up or down. The JVC has 3 very similar versions of its main reverb, and 5 bionic ones. I also sampled it in combination (running into) with some eurorack synthesizer modules, including lots of interesting filters (filter banks, formant filters, low passes, etc) and some other modules. There were 8 modular patches, which produced 8 more reverbs. Some of the JVC bionic and +modular reverbs are actually in mono- that's how they were sampled.

There's a lot of variety in the classic spring reverb sound here, yet every reverb effect has that dusty tone and huge, faraway sound, enhanced by the tube amps. Classic, instant dub sound, but useful in many genres. 21 different reverbs to choose from altogether, with 3 being very similar (JVC main), and the rest being fairly different, but all still having that classic spring sound.

## **Installation**

Just copy the .n2p files to your Nebula 'Programs' folder, and the .n2v files to the 'Vectors' folder. Be sure to look at the separate skin install manual for step by step instructions on installing the skins, for both N3 and N4.

## Organization

The programs will all be found in the 'REV' category in Nebula, then in the 'CS9' and/or 'CS4' sub-categories. 'CS9' = 96kHz set, 'CS4' = 44kHz. CS= Cupwise Springs. This location in Nebula contains all of my spring reverb libraries, so if you own others, you'll have a lot of great springs right there, to choose from.

## Use

All of these programs are set up to use as 'sends', and I encourage you to use them that way. If you really want to use them as inserts, I strongly suggest using your DAW's built-in wet/dry mixer control for the Nebula plugin, instead of using the 'dry' control in the reverb programs to add the dry signal back in. If you insist on using the 'dry' control in the programs to add the dry signal back in, you definitely want to avoid using the 'feedback' control also. The reason is explained in the tips section at the end of this manual.

One benefit to using these programs in an actual send slot in your DAW, is that you can also then apply a delay to the signal with whatever means at your disposal (again, see the tips section for a lot of ideas on this stuff), to get a pre-delay for the reverb effect. Nebula doesn't have this ability built in, so this is the only way to achieve a pre-delay.

The best results to be had from this library, are when you get the output level averaging somewhere around -18 and -10dBFS on the output meter, with peaks allowed above that, but just don't overload Nebula. Notice that I said output and not input. These programs are driven by their output level, not input. I set them up this way because of personal beliefs about what produces the most authentic results. All of my reverbs work this way, not just this library. Try to keep this in mind.

## Lite and Full versions

The 'lite' programs have all the dynamics and harmonics stripped out, and have their lengths/tails cut off a little earlier. So using them is like using standard convolution impulses without the dynamics that nebula allows. You still have the sampled 'damp' control, which allows you to load the reverbs and tune the controls to taste while using much less resources than you would with the full versions. Then when you are ready, you can switch to the full version program to render.

The only problem is that you'll have to transfer your control settings from the lite program over to the full one (unless you're using the N3 skins). There are tricks in various DAWs such as using automation, to keep the controls in place. I recommend doing it that way, if possible. The full versions will sound a little different from the lite ones after switching, because of the added dynamic layers, so you may want to listen to the full version a bit and possibly even adjust levels (which will affect the sound) to taste, before rendering.

**Lite programs load quicker, and use less RAM and CPU than the full versions. They are intended for auditioning the sound in your mix temporarily, and adjusting the controls the way you want them.** The full version programs are much more authentic sounding than the lite ones, but they also have many more samples, are much more complex, and therefore take much more RAM and CPU to use. You really should switch to the full versions before rendering because the dynamic steps really give a more detailed model of the sound.

### **Controls**

**Dry-** Adjusts the dry signal's level. The programs load with this at the lowest level, which cuts the dry signal out. You definitely shouldn't use this to add dry signal in if you are going to also use feedback, and I recommend you never use it, and use your DAW's built-in wet/dry mixer control for Nebula instead, or even better- use the program in a send slot.

**Verb-** Adjusts the reverb level.

**Select-** In some programs it switches between different reverbs.

**FeedB-** Adjusts feedback level. I usually never use it, because it gets metallic sounding fast, but a *little bit* of it may help beef up the reverb effect in some cases (and it can be cool sometimes for more experimental, droney results). Keep in mind that ANY changes you make to any of the other controls, or even to anything else about the audio you have going into Nebula can cause the feedback to go out of control, so the best thing to do is to adjust everything else the way you want it first, then add in some feedback to taste, and if you need to change something else again after that, lower the feedback first. You should also have a limiter after Nebula if using any of this.

### Tips:

- BE CAREFUL WITH THE FEEDBACK. I highly recommend you put a limiter after nebula if you want to use the feedback control in these programs. Settings under 5-10% may be mostly 'safe' to use without a limiter, but over that you should make sure to have one on.
- You should avoid using the dry control if you are also using feedback, because the dry signal also feeds back which is typically not a good thing. This is just how the routing in Nebula is set up, and there's no way for me to change/fix it.
- Probably the best sounding results are going to be easier to get if you **try to get the output levels shown in Nebula, usually reading at between -18dbfs and -10dbfs**. You can adjust the 'verb' control to get the output level in that range, but always avoid clipping (look for the clipping indicator on nebula to light up, if it does, try lowering Nebula's input control until it stops). **If using the programs on a send channel in your DAW's mixer, I strongly recommend using the channel's fader to adjust the reverb level where you want it in your mix, instead of using the 'verb' control or nebula's output control to do it, because using those controls to lower the output will alter the sound you get.**
- About pre-delay- my favorite way of using these reverbs has become not using a send, but actually having a duplicate track in my DAW (Reaper for example) with the audio that I'm going to process with the reverb, and adding the reverb program on that duplicate track. This allows me to go into the main track layout and slide the audio items around to achieve the pre-delay I want. So if you're using a DAW that handles audio clips like that, I strongly recommend trying it that way. For me it's just a lot quicker and even more fun, to grab audio clips and slide them around to get the effect I want. You could even put the reverb track audio a little bit *before* the dry audio, to have the reverb happen first! Another thing you can do is slice the audio into segments in the reverb track, and slide each one around a little bit differently, so your pre-delay amount is changing every so often (or you could even reverse the audio in short sections), and this is really quick to do in a capable DAW like reaper.
- If you just want to use a more simple reverb send setup, you really should find a plugin that's good for adding some pre-delay. I suggest checking out the free Voxengo Sound Delay.
- You can change the settings of Nebula to increase the DSPBUFFER setting (in the setting .xml file), which increases the latency you'll have, but also lowers CPU use which is good for reverbs. You want to always be doubling or halving the DSPBUFFER value if you ever change it. On windows you can make a copy of the nebula .dll plugin file, and the accompanying .xml file with the settings, and rename that copy something to indicate it's just for reverbs, then increase the DSPBUFFER setting only in that one. If you want more info on this you should search around the acustica forums for DSPBUFFER, or even ask there, or you could email me.

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