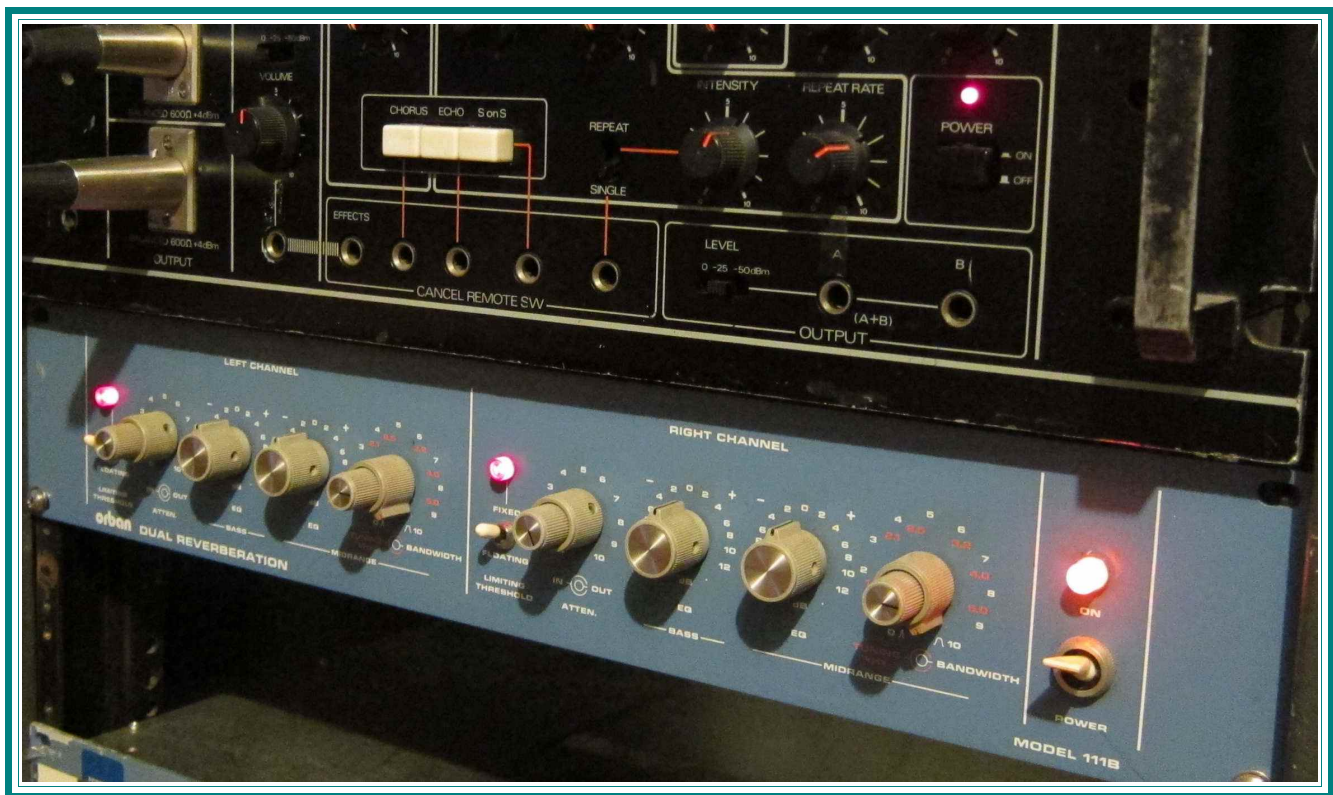


# Raybon + NolardB Spring Reverbs



**IMPORTANT:** If you don't feel like reading this manual in its entirety, here are some areas I've highlighted that you really need to check out.

**1. Lite, and Full**

**2. BE CAREFUL WITH THE FEEDBACK**

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

**4. You should avoid using the dry control if you are also using feedback**

## General Info

Two different hardware spring reverbs were used in the creation of this library. There's a stereo spring reverb effect sampled from the 'Raybon' hardware, and one sampled in mono from the same model of equipment that was used in my previous 'Nolard 555 Spring + Tape Delay' set, but from a different unit. Both reverbs in this library have a control that allows you to adjust the tone, which were created by using the hardware's EQ controls to create different 'states' which you can transition between.

You can adjust the length/fadeout of the reverb with a special control I created, which applies a fade and cuts the length at the same time. There are programs with and without this control, because the control drastically increases CPU/RAM use. You can use the programs without it to save resources, and use the settings in the kern page of nebula to adjust length and fade (this is explained in the controls section of the manual under 'fade'), which is actually more powerful than my combined control, but a little less convenient. You also have a feedback control in all programs, which can occasionally be useful.

I've also provided lite versions, to try to help make it easier to use these in a mix. The lite versions load quicker and use less CPU so you can use them for setting up and auditioning the reverb in your mix, before switching to the full version for rendering. Lastly, the reverbs I've been making lately have many of my own custom changes to internal settings to provide what I think is a more realistic result.

What's in this collection:

- 1 reverb effect sampled from the 'Raybon' hardware, in stereo. This means that in each channel you get a slightly different reverb effect (because each side actually went through a separate spring), which creates a sense of width in the reverb effect you get. The hardware's EQ controls were sampled to produce a control you can use to go from 'really bassy', through 'flat', to 'really trebly'.
- 1 reverb sampled from the 'Nolard 555' hardware, which I'm calling 'Nolard B' to differentiate it from 'Nolard A' which was released in my

previous Nolard reverb library, and which used the same model but a different actual unit. Here, the hardware's EQ controls were sampled to produce a transition between a 'smiley' EQ curve, through 'flat' to a 'frown'. This contrasts how the tone control worked in Nolard A, where it acted like a tilt control. Even at 'flat' settings the reverbs sound different between Nolard A and B, so this program offers something different even if you already have Nolard A.

- Lite and full versions of all reverbs.
- Versions both with and without my added 'fade' control, which shortens reverb length while adding a fade out. NoFade programs use less CPU, and the lite NoFade uses the very least. The full Raybon reverb WITH fade barely runs on my system (due to long reverb length and complexity of the program), but it's still included because you can use the lite version and then switch to full for render. Alternately you can use the NoFade versions only, and use the settings on the kern page to add more precise fade amounts yourself (explained under the 'fade' control entry later in the manual).
- An additional reverb made from the 'Raybon' impulses, which was made by mixing the left and right channels down into a mono result. This reverb is a little thicker sounding than the main one, but lacks any stereo depth (being mono). This reverb only comes in the NoFade variety.

### **Installation**

Just copy the .n2p files to your Nebula 'Programs' folder, and the .n2v files to the 'Vectors' folder.

### **Organization**

The Raybon 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 stands for 'Cupwise Springs' and some of my other reverb releases are grouped in this spot too. So if you have several of those libraries, you'll have access to many spring reverbs in one convenient location.

## Use

All of these programs are set up to use as 'sends'. So by default they load with the 'dry' control off. Nebula's internal routing is set up so that the dry signal is also included in the feedback path. So if you use the feedback control I've provided, and increase the dry control, the dry signal also feeds back, which gives you comb-filtering and it's just bad. I don't know why Nebula's routing is like that, but there's nothing I can do about it. So I've set the programs up to load as sends, and I encourage you to use them as sends. If you really want to use them as inserts and want to use the feedback, try using the wet/dry control built into your DAW (although this will only work well if your DAW has good delay compensation).

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, 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.

To be able to have the full 8.5 seconds of reverb tail you need to modify your Nebula setup xml. You need to find these tags in the .xml:

```
<LTIMED> X </LTIMED>
```

```
<FREQD> X </FREQD>
```

Where 'X' will be some number. Change them to this:

```
<LTIMED> 10000000 </LTIMED>
```

```
<FREQD> 10000000 </FREQD>
```

This is another thing about Nebula that I really just don't know why it's set up this way. For some reason, by default, it is set up to trim the lengths of impulses that go over 5 seconds. I have no idea why it would be set to do that by default, but all I can say is that if you want the full 8.5 seconds you have to do this. It won't change anything else about how Nebula works, or how any other programs work.

## Lite, and Full

The 'lite' programs have all the dynamics and harmonics stripped out. They also have the reverb length cut off at ~5 seconds, with a fadeout applied to the last half second. Because they lack dynamics/harmonics, using them is just like using standard convolution impulses (but you still have an adjustable EQ control that was actually sampled from the hardware). Lite programs load quicker, and use less RAM and CPU than the full ones. They are intended for

auditioning the sound in your mix temporarily, and adjusting the controls the way you want them. Then, when you want to render you can (and should) switch to the full programs. You could render with lite if you want, and it won't hurt anything, but the full programs are just more authentic.

The full programs have dynamics and a few harmonic orders. Full programs are much more authentic sounding than lite, but they also have many more samples, have full 8.5 second lengths, are much more complex, and therefore take much more RAM and CPU to use.

## Controls

**EQ-** This control was sampled from the EQ controls on both pieces of hardware. By default it loads at 0%, which means no EQ boosts or cuts are happening. In the Raybon programs if you move towards 100%, you get less bass and more treble. Towards -100% you get more bass and less treble. It's like a 'tilt' eq. In the Nolard programs, going towards 100% gives you boosts of both bass and treble together (producing a 'smile' eq curve), and going towards -100% gives you cuts of both (giving you a 'frown' curve). This control acts as a switch in the Nolard programs, between 5 positions. In the Raybon programs it's a smooth transition across the range of the control.

**Fade-** Only in the reverb programs that have it. This control does two things. It shortens the reverb and it adds a smooth fade-out to the tail. You get shorter length as you increase this control. It's more convenient (but not as powerful) to have this control than going to the kern page and shortening the reverb length there, but it comes at the cost of drastically increased CPU/RAM. So the alternative is to use the 'no fade' programs, and use the settings on the 'kern' page to shorten length/apply fade yourself directly, instead. You can shorten the reverb length by lowering the setting (in ms) for the clean kern, under 'freqd'. You can add a fadeout by increasing the 'fade' setting, also for the clean kern. You can set long fadeouts, or quick ones. You could even set up a gated reverb effect this way (very short fade, around 20ms, combined with cutting the reverb tail off short, maybe 3 seconds as an example). So using these settings, as you can see, allows you more ability to custom shape the fade, versus my fade control. It's just less convenient (but also much less CPU intensive).

**Dry-** Adjusts the dry signal's level. The programs load with this at the lowest level, which cuts the dry signal out. You really shouldn't use this to add dry signal in if you are going to also use feedback. I already went over that under the 'Use' section above.

**Verb-** Adjusts the reverb level.

**FeedB-** Adjusts feedback level. A little feedback can go a long way. 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.

**Tips:**

- BE CAREFUL WITH THE FEEDBACK. Put a limiter after nebula if you want to use lots of feedback. Adding just a little bit really is a nice way to beef up the sound just a bit.
- Check the entry for the 'fade' control above for a good tip about using the settings on the kern page to fine tune the reverb length and applying a fade. You can use these settings with the 'no fade' programs to save lots of CPU/RAM, and actually get more control over the end result, too.
- If you use the reverb programs on a dedicated send track in your DAW, you should try to find a good method of adding some adjustable pre-delay before Nebula, since Nebula can't do it on its own.
- 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.
- Don't be surprised if you can't run the 'full' version of the Raybon spring program with the fade control. It's intended for rendering purposes only. So either use the 'lite' version until you're ready to render (then switch to full), or just use the NoFade versions.

V1.5 – use this version number to keep track of updates. If the manual posted at my site has a higher version number than the one you have, your set probably isn't up to date.

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