



## **General Info**

This collection includes effects sampled from three sources. The 'Time Tube' unit passes audio through lengths of hose using speakers and pickups, to produce a delay of a few milliseconds, creating a Haas 'doubling' effect where the delay isn't heard as a distinct echo, but instead blends with the dry signal in a way that thickens the sound. Some people love it for vocals. The delay actually comes from the amount of time it takes the sound to travel through the hose. It offers two modes: stereo, where each channel goes through separate hoses of different lengths (also producing a stereo widening effect), and mono, which passes the audio through both lengths of hose in series, giving a slightly longer delay. I've made programs recreating both.

The other effects were sampled from two home stereo system units: the Pioneer SA60, and the Sansui SA-710. They were both designed to add ambience to the music you play on your system, using bucket brigade delay chips. The SA60 uses the Panasonic MN3008 BBD chip, and I believe the SA-710 uses the same, or a similar chip from that line. The SA60 can do a really nice 'duet' effect, which is a short delay good for doubling, similar to the 'Time Tube'. Both of these units attempt to produce 'reverb', by feeding some of the BBD output back into the chips. The SA-710 has a graphic EQ for shaping the 'reverb' effect.

I've made multiple programs from both units. The SA-710 programs include several 'reverbs': two offering you different forms of sampled EQ control over the reverb, one allowing you to adjust the amount of sampled feedback (I had to open the unit up and adjust a trimpot to achieve this), and two others where I tried to make the fake reverb effect better by thickening it (in one case by blending a delay guitar pedal with it). For the SA60 I recreated both the Duet and Reverb modes, and also made alternate 'bionic' versions, sampled in a way that shifts the frequency response up or down a bit.

I also made some EQ programs from the SA-710, to have a little variety from all of the nice high-end Nebula EQs. They offer very simple control in the form of up/down tilts or smile to frown transitions. The unit has a stereo widener control that produces a very poor 'pseudo stereo' effect, which I also sampled.

## Installation

There are two main steps to the installation-

- Install the programs/vectors. Just copy the .n2p files to your Nebula 'Programs' folder, and the .n2v files to the 'Vectors' folder. Before moving on to the skin install, check to see that the programs load properly in the default Nebula. The programs are in the 'DEL' category, then either the 'ST4', 'ST5', 'ST8', or 'ST9' categories below that, depending on the sample rate(s) you've installed. 'ST5' is for the 48khz rate.
- 2) To install the skin, you first <u>need to download it separately, from Max's Patreon.</u> Then consult the skin installation manual that is included with his download! After installing the skins you will be loading these programs as a unique plug-in, not by using the default Nebula and its program finder/list to select them!

# **General Use**

I strongly recommend you use the Time Tube, and all of the other delay and reverb programs as sends in your DAW, instead of as inserts. They are set up to be used as sends, by default, for several reasons. If you really want to use them as inserts, I recommend using your DAW's built-in wet/dry mixer control for the Nebula plugin, instead of using the 'dry' controls on the GUI to bring the dry signal back in to Nebula's output. The reason is because if you use that control to introduce dry signal, and use the 'feedback' control, the dry portion of the signal is also fed back, which is not good. Nebula was designed by Acustica to work this way and there's no way around it. This is why I set my reverb/delay programs up for use as sends, by default.

When using as a send, you should make sure that your DAW correctly compensates for the delay Nebula introduces due to its latency (probably most major DAWs do these days, but some, like FL studio, don't do it automatically last I checked). Reaper does this well so I know you don't need to worry about it there.

You don't need to worry about any of this for the EQ or pseudo stereo programs. Just load them as inserts, as you normally would for an EQ.

# **User Interface**



# 1) Program Matrix, Sooper Time Tube and SR60 Duet programs –

This column of buttons can be used to pick any of the 'doubling' programs.

2) **Program Matrix, EQ/Pseudo Stereo** – These buttons are for the various EQ programs, and the pseudo stereo one.

3) **Program Matrix, Reverb** – This column has all of the 'reverb' programs.

**4) Dry dB** – Only in the reverb/delay programs. You can bring back in some of the dry signal with this. The programs load with it all the way down, because I recommend using the programs as sends in your DAW instead of as inserts. See the "General Use" section on the previous page.

**5) Reverb/Delay dB** – Only in the reverb and delay (doubling) programs, and it's labeled differently, between them. It adjusts gain for the effect.

6) Feedback – Adjusts the amount of feedback.

7) Trim Pot/EQ/Select – This one will have different labels and do different things, depending on the program. The 'program specific info' section below goes into more details.

8) **Power** – This switch bypasses the effect.

**9) Input Meter** – Below the meter is an overload indicator that lights up if you go over 0dBFS (don't do that).

# **Program Specific Info**

## Sooper Time Tube- Stereo

This was sampled from the tube/hose delay unit in stereo mode. The right channel has a 14ms delay, 16ms for the left. This gives you not just a doubling effect, but also widens the stereo image. The ALT version has some feedback removed, which was in the original recorded samples. I'm not sure if the feedback is a normal aspect of the hardware or if it otherwise crept in to the samples. The alt version takes it out. It's VERY subtle.

#### Sooper Time Tube- Mono

Used the unit's mono mode which passes the audio through both hoses, resulting in a mono delay of 30ms. It's also a more colored sound, because it went through both sets of mics and pickups. Great doubling effect. You can still use this with stereo sources. It doesn't actually give you a mono output, it just processes both channels with the same impulse. The alt version here had the sampled feedback removed, like with the stereo version.

**SR-60 Duet** – Reproduces the duet mode- a single-tap echo at 93ms. An internal trim-pot was sampled. It alters the delay tone very slightly, and increases its harmonics.

**SR-60 Bionic Duet 1** – I sampled the duet in a tricky way which resulted in the frequency response of the echo being shifted upwards, giving a brighter sound. The Trim Pot control can also be adjusted here and is similar to the main program.

**SR-60 Bionic Duet 2** – This one shifts the response up even more.

**SR-60 Bionic Duet 3** – This one included an FM transmitter and a tube radio in the sampled signal path. Here the Trim Pot control transitions between a few different sampled setups. Each setup used my bionic technique to get a different frequency response, and other things were different between them as well. Some positions of the control can give some nice and weird results, especially if you add some feedback.

#### SA710 Tilt EQ 1

I used one of the graphic EQs to create a program with a control that tilts up or down.

#### SA710 Tilt EQ 2

Same as previous, using one of the other EQs (the unit has 3 separate graphic EQs). The two EQs used for these have a different number of bands which are at different frequencies, so these programs sound different.

#### SA710 Smile/Frown EQ 1

The EQ control transitions from a frown EQ shape at one end, to a smile at the other.

#### SA710 Smile/Frown EQ 2

Same as previous, but uses the other graphic EQ.

#### SA710 Pseudo Stereo

This one sampled a control on the unit that produces a 'widening effect' by EQing each channel differently. It can be used to give a mono input a stereo effect, or to widen stereo inputs which have some mono content. It's actually a very poor implementation of pseudo stereo, but I sampled it anyway!

**SR-60 Reverb** – Sampled the unit in its 'reverb' mode. It's no good for use as an authentic acoustic space, but has it's own sound and can work well for more creative uses. Trim Pot control slightly changes tone and harmonics.

**SR-60 Bionic Reverb 1** – Again, my bionic method was used and produced a brighter result. It can get a bit more metallic. Try the feedback control for analog metallic heaven (if there is such a place). Trim Pot is like the other programs.

SR-60 Bionic Reverb 2 – This one is even brighter and more metallic.

**SR-60 Bionic Reverb 3** – Brighter than the main program. This one also included an old tube amp from a Philco home audio system. The Trim Pot control adjusts between different sampled setups, where I got different results by adjusting EQ knobs on the Philco amp, among other things. Just try adjusting it!

#### SA710 Reverb + Tilt EQ

The BBD reverb effect from the SA710 unit. I sampled the graphic EQ at different settings, producing a program with a Tilt control that tilts the frequency response of the reverb up and down.

#### SA710 Reverb + Smile/Frown EQ

This time the EQ control I provided transitions from a smile EQ shape to a frown one.

#### SA710 Reverb + Sampled Feedback

This one doesn't include any EQ. Instead, I sampled an internal trimpot inside the unit, which adjusts the amount of feedback the unit uses for its effect. So for this program you have two feedback controls- the sampled one, and the one that uses Nebula's feedback routing. These both sound different, and using both can produce denser results.

#### SA710 Reverb + Delay Pedal

For this one I combined an analog delay guitar pedal with the SA710 to try to produce thicker "reverbs". It didn't really work out very well, but some of these might be interesting on synthesizers. I set up and sampled 5 different effects, using different EQ/tone/feedback settings with the two devices. I also produced 3 alt versions by EQing some of the samples. You can select between all 8 options with the 'Select' control.

#### SA710 Reverb Thickened

This program represents a second attempt to fulfill the promise of "reverb" created by analog delay. Here I thickened the delay by merely superimposing and mixing many multiple copies from all of the different sampled SA710 reverb effects I had made. I usually tried to produce results that would be brighter at first, with the high frequencies dropping off in time, like with real reverb.

V2.00 – 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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