



## General Info

This volume has Nebula tone programs made from many unique and vintage preamps, some mixing desks, some outboard EQs and compressors, and a saturation processor. Some include an adjustable, sampled control allowing you to adjust the gain of an EQ band, or the amount of saturation. There are 35 tone programs altogether, made from 22 different types of gear.

A major focus with this release was to achieve heavier distortion. To that end I spent a lot of time rethinking how I make my programs, and came up with a method entirely different from anything I've ever done. 10 of the 35 tone programs are capable of producing heavy distortion. You need to read the "How to Get Distortion" section on the next page to learn how to do it.

Also included is a smaller batch of programs that only recreate the gain reduction that occurred when some of the gear was driven hot enough to distort. These programs provide no tone or harmonics, and only add some compression/limiting, modeled from the sampled gear while saturating. There are 12 of these and they have their own skin/GUI. That's a total of 47 programs.

Also included is a pair of really nice skins by JPN.

## Installation

There are two steps to the installation-

- 1) 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 do load properly in default Nebula, by going into Nebula's program finder list and loading them from there. You'll find the programs in the 'PRE' category, then either the 'CX4', 'CX5', 'CX8', or 'CX9' categories below that, depending on the sample rate(s) you've installed. 'CX5' is for the 48khz rate.
- 2) To install the skins, consult the section of the skin installation manual relating to either Nebula 3 or Nebula 4, depending on which you're using. After installing the skins you will be loading these programs as a unique plug-in, so don't ever load them from the default Nebula and its program selection list again! The program buttons will not work if you do!

## How to Get Distortion

The 'Dist' tone programs are the only ones that can produce heavy distortion, but if you just load one of them by itself and push it into distortion you will probably get bad, nasty sounding results. Unless your audio is already heavily compressed, you will need to have one of the dynamics programs in your processing chain just **before** the 'Dist' tone program, to get control over the dynamics.

- 1) First, load the dynamics module and pick one of the dynamics-only programs that say 'Dist' in the name (all but one do). Increase the input trim control until you hear the input dropping by several dB. You should have at least 5dB or more of gain reduction for this to work. You need a squished signal with little dynamic range, and no varying peak levels. For most of these programs, if you boost input trim until the peak readout shows -14dB or higher, your signal will be adequately compressed.
- 2) Following the dyn-only program, load the tone module, and select the 'Dist' tone program matching the one you picked in the dynamics module. Now in the tone program GUI, slowly increase the input trim control until the peak readout is very close to 0dB (as close as you like, just don't go higher). As you get close to 0dB you should begin to have noticeable distortion. Adjust the 'DistX' control to alter the sound of it. Just find a spot on the control that you like and leave it there. Then you can adjust the 'Harm Lvl' control to adjust the loudness of the distortion.
- 3) The release control in the dynamics module can be used to alter the character of the distortion. Lowering the release time down to the minimum setting usually makes the distortion thicker.
- 4) You could actually try using dynamics and tone Dist programs that don't match, like for example using the Phoenix dynamics program with the 456 Sat tone program.

So the summary is that before you load a 'Dist' tone program to get distortion, you need a really compressed and peak limited signal, to avoid weird nasty surprises. This type of setup makes sense- if you think about times where you have a piece of gear being overdriven into distortion, the resulting signal is also usually very compressed, with heavily limited peaks/transients. This is why we must squish the signal first.

Here's a video that shows the process of getting distortion, in action:

<https://www.youtube.com/watch?v=6xVM-mtz9ws>

Some notes:

Look at the dynamic response graphs for each dynamics program, later in the manual, and you'll notice that they all begin compressing/limiting the signal at different input levels, and will all provide different amounts of compression with the same input signal. For example, the 'S Mic Filt' dynamics program produces a lot more gain reduction than the others, so with that one you don't need to drive your input as hot to get the reduction needed for the distortion program.

The RCA 96A dynamic program is the only one that doesn't have a matching tone program capable of doing distortion. The RCA 96A program can do subtle harmonics but isn't designed to give full-on distortion when pushed, so don't expect that from it. This piece of gear did however produce some compression when sampled so that is represented in the dynamics program.

## The Main Tone GUI



1. **Input Trim** – This input gain control has output compensation which keeps your output level constant so you only hear the tonal changes while boosting or lowering the input.
2. **Harmonics Level** - Adjusts amplitude of the generated harmonics. Most useful in the 'Dist' programs where you can adjust up or down for more or less distortion.
3. **Output** – A simple output control. Full boost gives +6dB gain.
4. **This knob** is usually not used, and in those cases a big red 'X' will be displayed to the left of it. In most cases when it is used, it will be labeled 'EQ' and allows you to transition between a sampled 'flat' state (no equalizing), and a sampled EQ curve. For the 456 Sat Dist program this control is labeled 'sat' and increases saturation as you adjust it upwards.
5. **This knob** is usually not used, and in those cases a big red 'X' will be displayed to the left of it. It is only used in the 'Dist' programs, and is labeled 'distX' in those programs. If you are using the program to get noticeable distortion (following the instructions in the 'How to Get Distortion' part of this manual), adjusting this control can change the harmonic structure, giving different sounding distortion. Just find a spot on the dial that sounds good and leave it there.
6. **Input Meter** – Calibrated to the -18dBFS = 0VU standard. The bypass switch is below the meter.
7. **Peak Hold** – The readout allows you to see what the loudest signals are peaking at, in dBFS. The idea is that with this readout you can drive your programs hotter without going over digital 0dBFS. Watching this is required for getting distortion with the 'Dist' programs. The Overload indicator to the right will light up if you do exceed 0dBFS, which isn't good. Don't do that.
8. **Program selection matrix** – Press these buttons to switch between the available programs. The 'Dist' programs are highlighted because they are special and can product distortion. The programs that say 'EQ' include an adjustable EQ knob, and the last program includes has the 'sat' control.
9. **Frequency Response Graph** - Shows you the frequency response of the chosen program. With the EQ and 456 Sat programs, it shows the responses at the extreme positions of the 'EQ' or 'sat' controls.

**A note about the frequency response graphs-** If you were to load these programs into a plug-in analyzer like Plugin Doctor, you would notice right away that some of the programs load looking very different from what is shown on the skin/GUI. What you see might look messy and you might even think something is wrong or bad, but you would be wrong.

Plugin Doctor uses short pulses of signal at 0dBFS (by default) to generate its frequency response graphs, which will always trigger the highest amount of sampled harmonics possible with any program. Some of these programs were sampled to reproduce high levels of harmonic distortion. You can think of the harmonics as another element being added to the 'fundamental' signal, at multiples of the frequencies contained in the input. This can obviously get messy, especially at high levels. Try loading a distortion vst into the analyzer and dial in high levels of distortion and see what that looks like. As it turns out, adding distortion tends to... 'distort' a frequency response. Who would have guessed?

I didn't think including the distortion in these graphs would be very meaningful because slight changes in input, or adjusting the 'distX' knob or any other control could drastically change the result. Instead, I simply removed all distortion from the graph, so you can see what the effect of the program on the fundamental portion of the signal will be. I did this by simply lowering the 'trim input' and 'harm lvl' controls.

## Dynamics GUI



1. **Input Meter** – Same as on the other GUI.
2. **Program Matrix** – Switch between programs.
3. **Peak Input Readout** – Shows highest input peak level in dBFS. Overload indicator to the right.
4. **Input Trim** – Same as on the other GUI, but here it will be the control you use to set gain reduction. Read the 'How to Get Distortion' part of this manual if you are trying to get distortion. Otherwise just boost this until you get an amount of gain reduction you like. Unfortunately I can't have a GR meter on this GUI so you'll have to go by ear.
5. **Makeup** – This control lets you make up the loss of volume from the compression.
6. **Release** – A release control for the compression/saturation behavior. As mentioned in the 'How to Get Distortion' part of the manual, if you're pairing a dynamics program with a 'Dist' program after it to get distortion, adjusting release up or down here can affect the distortion greatly.
7. **Bypass** – This switch allows you to bypass the effect.

## The Main Tone Programs

Where possible I quoted the owner of the gear that was sampled, using their own description.

1. **AmpX 601** – Two custom tube preamps repurposed from vintage tape decks were sampled in stereo to produce two programs.  
The hot version was sampled slightly hotter, giving a slightly higher level of subtle harmonics.
2. **GSound GSL4** – BBC solid state mixing desk pres, 2 channels. Very clean, with a nice subtle roll off of the higher frequencies.
3. **Phoenix** – "Amazing preamp - modern but super lovely & with gorgeous saturation. Two channels." Class A.  
The main program can give some subtle harmonic enhancement, but the Dist program can be used for distortion.
4. **RFT4053** – 1950's mono tube mic preamp from Germany. These do gently roll off bass starting around 300Hz, as shown in the graph on the skin.  
Two units were sampled and combined into stereo for the ch1+2 program, and a third was sampled by itself for the mono ch3 program.
5. **Orchid** – "Two mic pres bespoke made by a British guy in the 80's (Orchid electronics) for a theatre company." Two of these were used to make a stereo program.
6. **Victor Custom** – A unique, custom built stereo mixing and mastering tube saturator.

7. **L241+V76** – "A unique mic pre I had made for me - its the input stage of a Lorentz 241 and the output stage of a V76 - gorgeous tube sounding mic pre." Mono.
8. **Ferrograph** – "Sweet sounding transformer from a vintage Ferrograph tape machine!"
9. **Stylyx EQ** – Two channels from a D&R Stylyx mixer.  
Main program has subtle harmonics. Dist version can be used for intense distortion. The EQ control boosts highs and cuts lows as you increase it.
10. **WB 480C EQ** – Ward Beck M480c channel strip preamp/eq. Two channels were sampled in stereo. The EQ control gives a boost around 400Hz.
11. **A828** – "Those little broadcast consoles are made by Alice. Lee Scratch had an 828 in his magic studio for a while." Two channels were sampled, for two separate sets of mono programs. Each were sampled three times with different levels of input gain.  
The main programs have subtle harmonics. The Dist programs can give heavy distortion. All programs start rolling off frequencies below 500Hz, but the two channels have slightly different frequency responses.
12. **RCA comp** - A remade RCA 96a, sampled for its tone.
13. **Atube EQ** – "All tube voice channel strip - superb as a distance mic on drum kit or guitars. Mojo for Weeks!! It is my fave DI eq - the best thing for DI bass ever - & stupendous on vocals."  
Two channels were sampled, for two separate mono programs. The second one is also a Dist program that can be pushed into distortion. Both have an EQ control that cuts lows at different frequencies.
14. **Vortex** – Vortexion MXR Type 3, three way mixer/mic pre.  
Channels 1 and 2 were combined to make main program in stereo. Channel 3 was driven hotter to make the Dist program, which can be used for distortion.
15. **Atec EQ** – A vintage 9062 EQ.  
Each program has an EQ control that boosts at different frequencies.
16. **S Mic Filt Dist** – 1970's frequency filter, with input and output transformers, hit really hot. This one can do heavy distortion.
17. **TT SMC2B** – A multiband tube compressor, sampled for its tone.
18. **UE100 clone EQ** – Sampled from a UE100 clone. High pass is always on, around 400Hz. Here, the EQ control allows you to either boost or cut the higher freqs.
19. **1176 RevA Clone** – Sampled from a clone of a 1176 Rev A, tone only.

20. **Melos** – "Two separate Melos Ep50 echo units from the 70s - great echo units - but lovely saturators too." Not sampled for echo, only for their tone.

The hot version has more harmonics for subtle enhancement, but still won't give distortion.

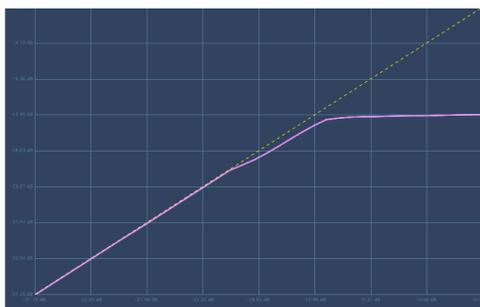
21. **Watkins Copycat** – Watkins Copycat delay unit, sampled for tone.

22. **456 Sat Dist** – 456 saturation box. The sampled, adjustable sat control boosts harmonics as well as dropping the high frequency end of the spectrum. To get distortion with this program you'll need to boost the sat control to the max setting.

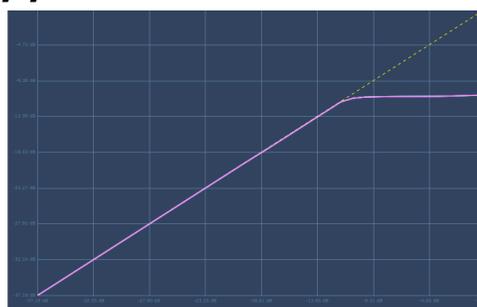
### The Dynamics Programs

I'm showing the dynamic response graphs for these programs below. You can zoom in to see the numeric markings. They're all identically scaled, so a quick glance will show you how different they are.

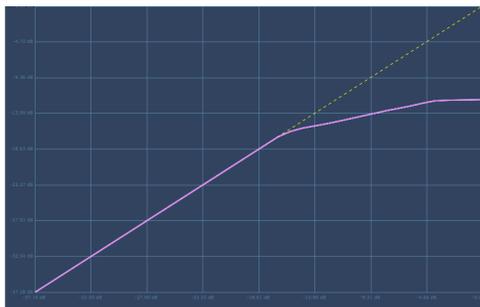
1. **Phoenix Dist**



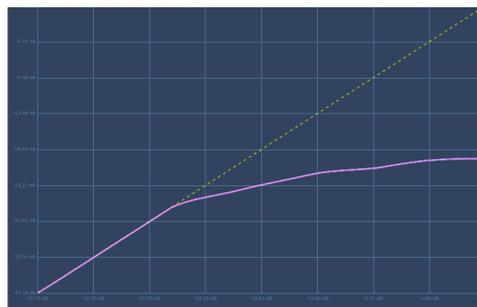
2. **Stylyx Dist**



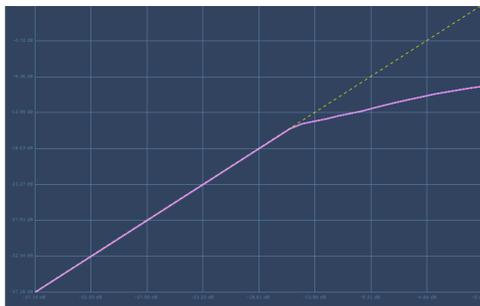
3. **A828 ch1 Dist A**



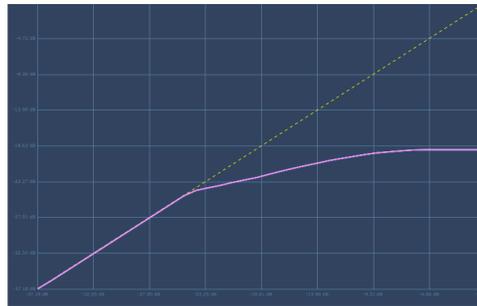
4. **A828 ch1 Dist B**



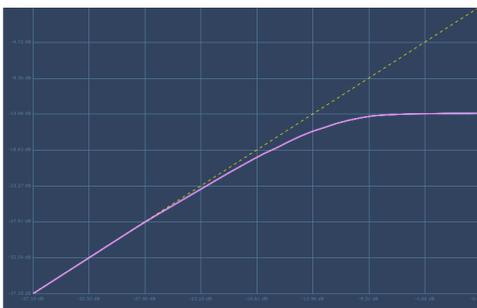
5. **A828 ch2 Dist A**



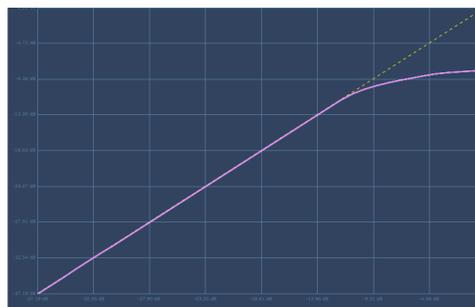
6. **A828 ch2 Dist B**



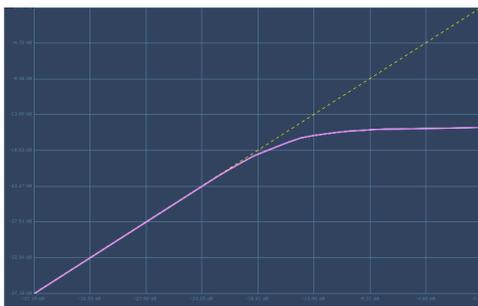
### 7. Vortex ch3 Dist



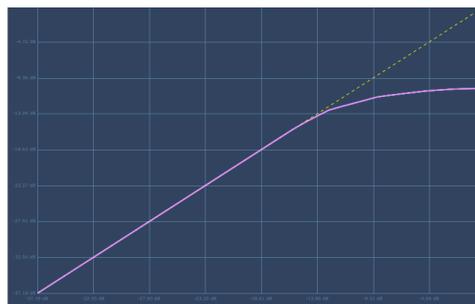
### 8. RCA 96A



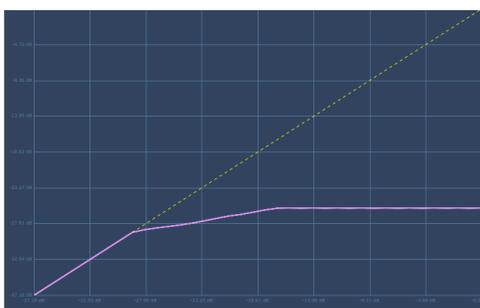
### 9. ATube Dist 1



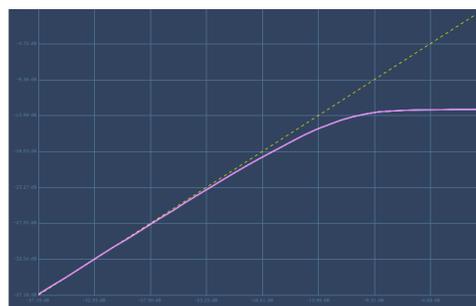
### 10. ATube Dist 2



### 11. S Mic Filt Dist



### 12. 456 Sat Dist



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<http://www.shrunkenheadsstudios.com/>

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<https://www.ianbarter.com/>

