# <u>Raybon & Wyte HP/LP</u> <u>Filters</u>





## **General Information**

HP and LP filters sampled from two different EQ units, and a bonus HP sampled from a preamp. One of the EQs is a vintage unit from a company that mostly dealt to the broadcasting industry, with some of their hardware finding use in recording studios (still to this day). The other is from a line of equalizers that mainly saw use in live situations and for room/monitor tuning, and are commonly said to have a very neutral sound. The preamp that provided the 3<sup>rd</sup> HP is a 'prosumer' model which has upgraded opamps.

There are 4 HP and 3 LP vectors in this set. One HP and LP both from the 'Raybon' hardware, another for the preamp, and 2 HP and LP each from the 'Wyte'. The Wyte filters were sampled twice. The second time the 31-band graphic EQ was employed to help make deeper filtering and a wider filtering range. I had read that the 'Raybon' (of course I've changed the name here) units were typically noisy, but mine has a surprisingly high signal to noise floor ratio (also very low distortion), and the filters both sweep in very far.

What sets these programs apart from most other Nebula HP/LP filters out there, is that they were sampled with dynamics (with plenty of dynamic steps/samples taken across a wide dB range). This is still pretty uncommon, for any kind of EQ/filter programs. It takes many many more samples to get a fair amount of dynamic steps represented, and it takes a lot more effort to make them this way (my other HP/LP filter releases have been done this way also).

This set includes:

- ◆ 3 LP filter. One was sampled from the 'Raybon' 672a hardware, and two were sampled from the 'Wyte' 4660. All were sampled with dynamics.
- ◆ 4 HP filters, one from the 'Raybon', two from the 'Wyte', and one from the T-BeeOne. Again, all were sampled with dynamics.
- Pass-through programs for the Raybon and Wyte, which give a way to get the tone of the units only (also dynamic). Both have a switch which allows you to get the tone sampled with the EQ/filters switched off, or switched on (but with HP/LP filters set to provide least possible filtering).

More info:

The range on the Raybon HP is between 20hz and 2khz, with a slope of usually around 12dB/oct. Its LP filter goes from around 13khz down to 200hz and has a slope of 10dB/oct. The first Wyte HP filter ranges between 10hz to around 220hz. The first Wyte LP goes from 20khz down to 3khz. Both of these Wyte filters have around 10-12dB/oct slopes.

- The second Wyte HP and LP filters were sampled by including the 31 band graphic equalizer bands in the filtering, to provide deeper filtering with a wider range. Because of how they were made, the filter slopes are steeper and less consistent than the others. Also, the 2<sup>nd</sup> Wyte LP filter was done by boosting all bands on the EQ by about 12db, so that when cutting with the bands to produce the LP filter effect, more cutting could be achieved. This also resulted in the frequency response below the cutoff being a bit jagged, which you may or may not notice in use.
- The 2<sup>nd</sup> Wyte HP has a range of 10hz to 800hz. The 2<sup>nd</sup> Wyte LP filter goes between 18 and 1khz. The slopes of these filters vary, ranging between 18d-40dB/oct.
- The T-BeeOne HP loads at 70hz, and can be set to 50, 110, 175, 210, 240, and 500. The 70hz setting is the only 'authentic' one, while the others were sampled using some trickery I've used in the past in some of my other libraries (I usually refer to it as 'bionic'), where the sampling tones were played at faster or slower speeds during sampling. The end result is that the cutoff of the filter is 'shifted' up or down, to get the other settings. This filter's slope is about 16dB/oct.

#### Installation

Whether you use Nebula 3 or 4, there are two parts to the installationfirst you install the programs/vectors, and then you install the skins. To install the programs/vectors just copy the .n2p files to your Nebula 'Programs' folder, and the .n2v files to the 'Vectors' folder. You can pick and choose which sample rates you want to install because everything is clearly labeled, inside the zip files.

Before attempting to install the skin(s), you should first test that the programs will load in the default Nebula (see 'Organization' section below to see where to find them in the Nebula menu), to be sure that you've done that first step correctly.

To install the skin(s), you need to look at the separate skin install manual for step by step instructions for both N3 and N4.

### Organization

The programs will all be found in the 'FLT' category in the default Nebula skin (you won't be loading them that way after you've installed the custom skins, though). From there, the 44.1khz set will be found in 'CM4', and the 96khz set in the 'CM9' sub-category. The pass-through programs are found in the 'PRE' then 'CW9' or 'CW4' categories depending on sample rate. I put all of my pass-through programs there, so that there will be a collection of them found in that same spot for anyone who has several of my libraries which include them.

## Controls

**HP-** This controls the high-pass frequency cutoff point. Only found in the HP programs.

**LP-** This adjusts the low-pass cutoff point, for the LP programs.

**Trim-** It allows you to adjust the input level going into the effect, and the output level is adjusted at the same time to keep a consistent output level. You can increase it to get a result with more input drive, but the effect is very subtle. The Raybon and T-BeeOne programs have no harmonics because the hardware I sampled has very, very low distortion. The Wyte programs have only 2 harmonic orders and they are very low in level. This makes the trim control very subtle in this library.

**Select-** Only in the pass-through programs. Switches between two differently sampled pass-throughs. At 0, you get the sound of the unit sampled with the filters/EQ switched OFF, and at 1 you get it with the filters/EQ switched on (but set to provide flattest possible response). The difference is so subtle you may not be able to tell. For the Raybon, the filters/EQ being on introduces the HP at around 20hz and a very slight high requency roll-off (a couple dB by 20khz). For the Wyte, the filters/EQ switched on slightly changes the harmonic pattern, but you probably won't notice it.

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.

Programs and manual copyright Feb 2014-Mar2021 Tim Wisecup <u>www.cupwise.com</u>