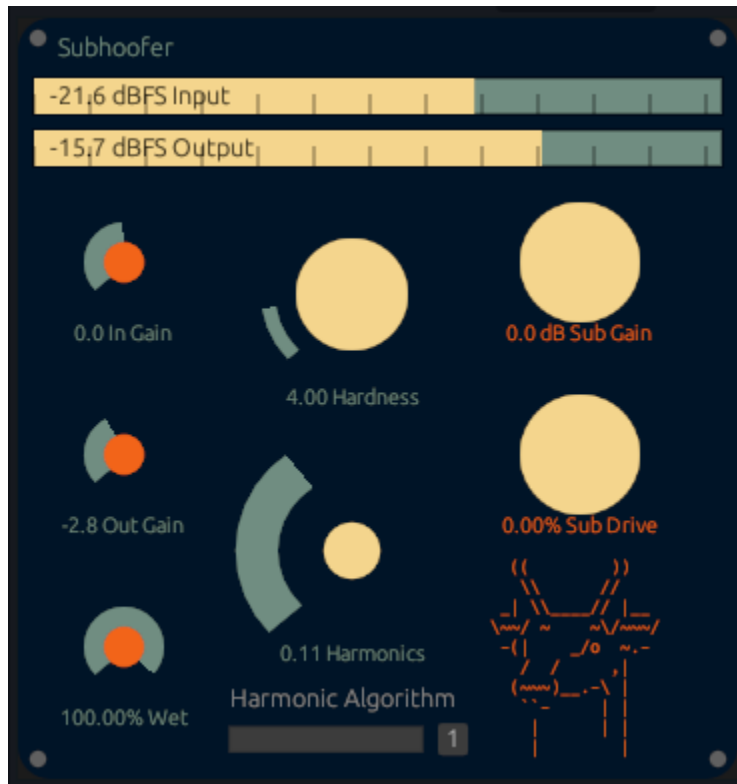


## Subhoofer by Ardura

Subhoofer is a sub and bass enhancement plugin aimed at being a lightweight replacement for other subharmonic generation plugins. Use it to make your bass audible on small speakers or extend the sub range in bass signals! You can also beef up guitars, add bass to other instruments, presence to vocals etc. Experiment!



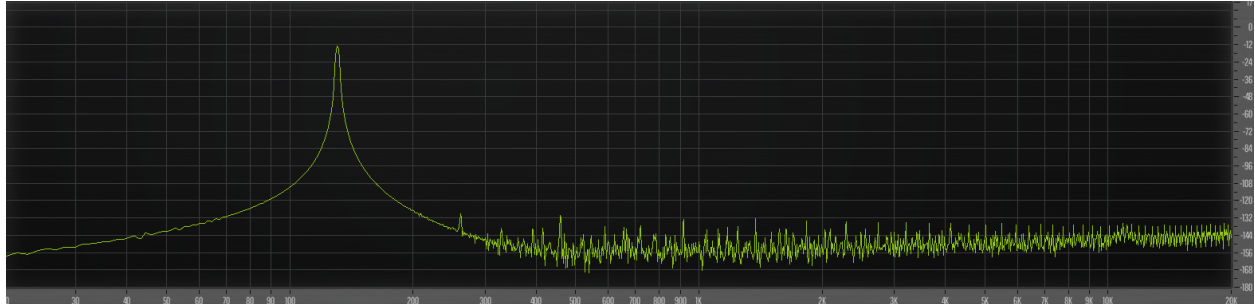
The default settings are already configured to mimic a bass plugin of renaissance 😊 However feel free to tweak further!

### Parameters:

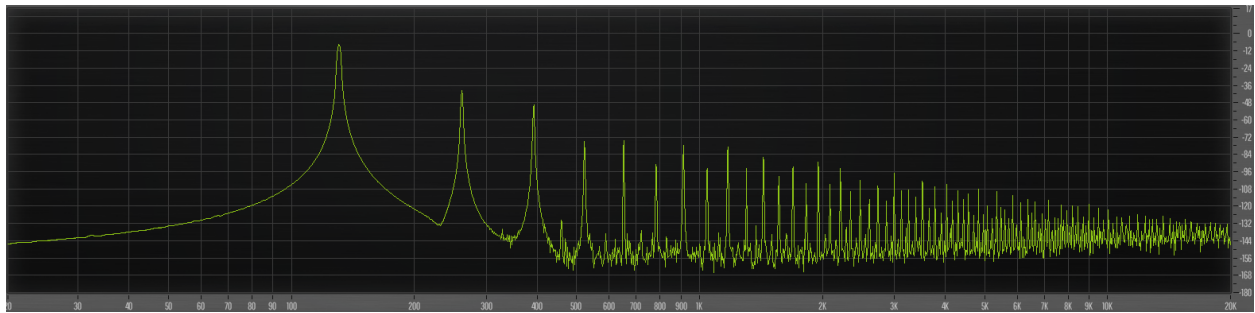
- **In Gain** - Gain *before* any processing happens
- **Out Gain** - Gain *after* all processing happens
- **Wet** - How much processed sound is there instead of dry/unprocessed sound
- **Hardness** - Tone control for harmonics - modified Chebyshev algorithm
- **Harmonics** - Generated harmonics added to the signal
- **Harmonic Algorithm** - The methods used to generate harmonics:
  - 1: An approximation of the first 4 harmonics with varying sin/cos amplitudes - sounds like a renaissance
  - 2: An 8 harmonic stack with a different low-focus than Algorithm 1
  - 3: A Modified 7 harmonic stack from Duro Console that favors non octave harmonics
  - 4: Harmonics added in from a tanh transfer function pretending to be tape
- **Sub Gain** - Gain for the subharmonic generator
- **Sub Drive** - Send the subharmonic signal to Harmonic Algorithm 4 for subtle harmonics

## Examples:

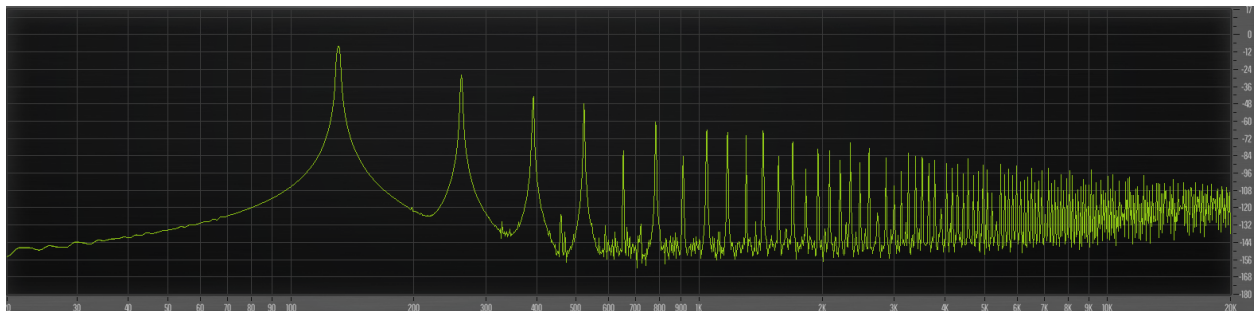
This is a sine wave at C3:



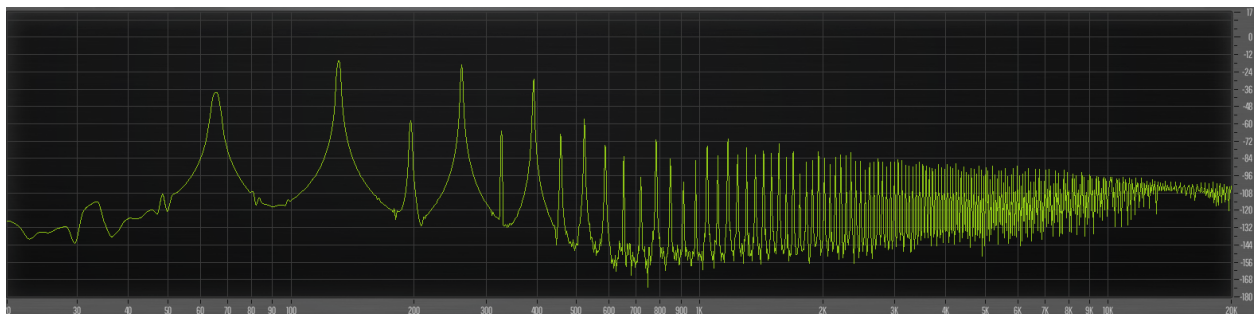
Using a Renaissance Bass plugin at default settings:



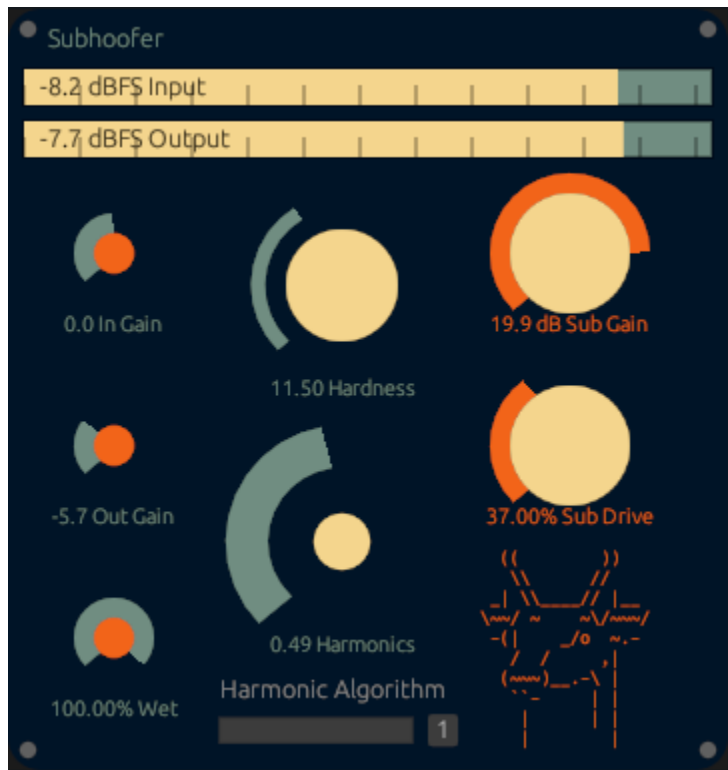
Using Subhoofer at default settings:



Tweaking settings further in Subhoofer - Note the presence of the sub now:



Here are the settings that produced the last example:



**Known issues:** Plugin will shut down if you make it generate a hugely positive signal - don't do this anyways if you want to keep your speakers/monitors working.