

HarmoniQ

INHARMONIC REMOVER



Let us introduce you to **HarmoniQ**, the VST plugin designed to help you **remove inharmonic** frequencies from your audio tracks. **HarmoniQ** provides an intuitive and powerful solution for cleaning up your sound.

Each sound, especially with acoustic instruments, contains a mix of harmonic and inharmonic elements. Inharmonic sounds contribute to audio muddiness and the boxy effect, and need to be removed to achieve a clearer sound.

Traditionally, this required adding high-Q bells with your favorite equalizer and manually adjusting their frequencies—a time-consuming and tedious task. **HarmoniQ** streamlines this process by analyzing the incoming audio in real time, **detecting the fundamental frequency**, identifying the subsequent **inharmonic frequencies**, and applying up to **50 filters to eliminate them efficiently**.

Once inserted in a track, **HarmoniQ** automatically analyzes the incoming audio signal (when the learn mode is in "Auto"). After the algorithm stabilizes the **number of filters required, they begin removing the detected inharmonic frequencies**. **HarmoniQ** can range from subtle reduction of inharmonic frequencies to more aggressive filtering, removing more inharmonic content to create a purer, more refined sound.



Effect amount: controls the intensity and degree to which the plugin removes inharmonic frequencies from your audio track.

The **Effect Amount** scales proportionally with the amount of cut provided by each filter. At 100% Effect Amount, the cut equals -18dB, while at 50%, it equals -9dB.

The **filter's Qs** are adjusted by the algorithm to be equal to the minimum distance between the frequency of the inharmonicity to be removed and the nearest harmonic frequency.

Adjusting the Effect Amount knob lets you balance between preserving your sound's natural character and achieving a cleaner, more focused audio signal.

Learn Mode: In this preliminary phase, the plugin calculates the number of filters needed to remove inharmonic frequencies. "Learn Mode" offers two options for ending the learning stage:

- *Auto:* The HarmoniQ algorithm stops learning once the number of filters does not change for 10 seconds.
- *On Stop:* The HarmoniQ algorithm stops learning when you press the stop button in your DAW.

Lower Limit & Upper Limit: these controls allow you to limit the processing of HarmoniQ only to the frequency range specified by these limits.

Delta Function: When enabled, the Delta function allows you to audition the difference between the input signal and the filtered output signal. This helps you evaluate the impact of the filtering.

ByPass: temporarily disable the HarmoniQ effect, effectively bypassing the filtering stage and allowing the original, unprocessed signal to pass through unaffected.

Reset Button: The Reset button restarts the entire process from the beginning: fundamental and inharmonic frequencies detection, placement of the necessary filters, and removal of the inharmonic frequencies.

Load and Save: for saving and recalling your favorite settings and speed up your workflow.

If you have any questions or need assistance with the **HarmoniQ** plugin, please contact our support team by submitting a **support request** here:

<https://www.hornetplugins.com/support/submit-support-request/>

We are here to help you get the most out of our products!