

HAKUNA
AUDIO

MULTISTAGE SIDECHAIN

USER GUIDE



WINDOWS · MACOS · CLAP · VST3 · AU

What it does

Four ducking stages in one plugin. Stage 1 makes the pump; the others shape what it leaves behind.

LISTEN FOR

- The bass making room for the kick, and returning in time for the next hit.
- Extra movement between the main hits when you add a second stage.
- A low end that still feels solid in the full mix.

BEFORE YOU START

Install and open the plugin. The first time it can reach the internet, a free 7-day trial starts by itself, with every feature. To keep it, paste the license key from your purchase email into the panel it shows; activation needs the internet once per computer and does not expire. A trial that ends without a key leaves the plugin silent until you activate.

Quick start

- 1 Insert MULTISTAGE SIDECHAIN on the **bass** — the sound you want ducked.
- 2 Leave the trigger on **SYNC**. It follows your DAW's tempo; nothing to route.
- 3 Stage 1 is on. Pick a division and a shape, and set the depth with the **MIX** slider.
- 4 For more movement, press stage 2, click its Mix slider once to switch it on, and give it a shorter division and less depth.
- 5 Route your kick to the sidechain input and press **PHASE LOCK**.
- 6 Compare in the full track, and keep what helps the groove.

Controls at a glance



1 Note divisions

The selected stage's cycle length.

2 Trigger mode

What starts the envelope.

3 HK mark

Opens Settings.

4 Kick and Bass meters

Input and output. Click to reset.

5 Envelope editor

Drag the curve, or its pivot.

6 Phase alignment

Phase Lock, Adaptive, Delay, Phase.

7 Mix and stages

Depth. A click turns the stage on or off.

8 Multiband

Keeps stage 1's duck in the low end.

9 Mono Maker

Folds the low end to mono.

10 Shape presets

Ten starting curves for the stage.

11 Overview

The kick against the processed bass.

12 Resize corner

Drag to resize. Everything scales together.

Stages and shapes

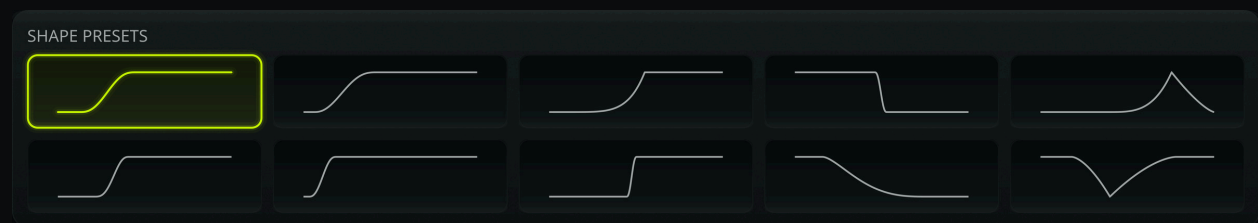
Each stage is one duck. Stages run in series, so a later stage can only take more away — never give it back.

STAGES

- Press a numbered button to **select** a stage. The division, shape and curve then belong to it.
- Click the Mix slider without moving it to switch that stage on or off. Drag it to set the depth.
- Stage 1 starts on at 100%. Stages 2–4 start off, at 80%.

THE CURVE

- Drag the curve sideways to move the duck earlier or later in the cycle.
- Drag the small pivot up or down to make the return harder or softer.
- The start and end of the cycle never move.



TOP ROW, LEFT TO RIGHT

CLASSIC	The everyday pump
LOOSE	Slower out, slower back
SUB BASS	A long, gentle return
TAIL CUT	Full level, then a cut
CREATIVE	A swell late in the cycle

BOTTOM ROW, LEFT TO RIGHT

CLASSIC TIGHT	Classic, snapped back
SHORT	Back up almost at once
BRICK WALL	Held down, then instant
TAIL CONTROL	Full level, then a long fade
WEIRD PUMP	A dip in the middle

Trigger modes

MODE	STARTS THE ENVELOPE	LATENCY	YOU NEED
SYNC	Your DAW's tempo. Keeps running when the transport stops.	None	Nothing to route
MIDI	Each MIDI note-on.	None	Notes sent to the plugin
AUDIO	The kick on the sidechain input.	8 ms, compensated by your DAW	The kick routed to the sidechain

In Audio mode, if hi-hats trigger the duck, raise Sensitivity in your DAW's parameter list for the plugin.

Multiband and Mono Maker



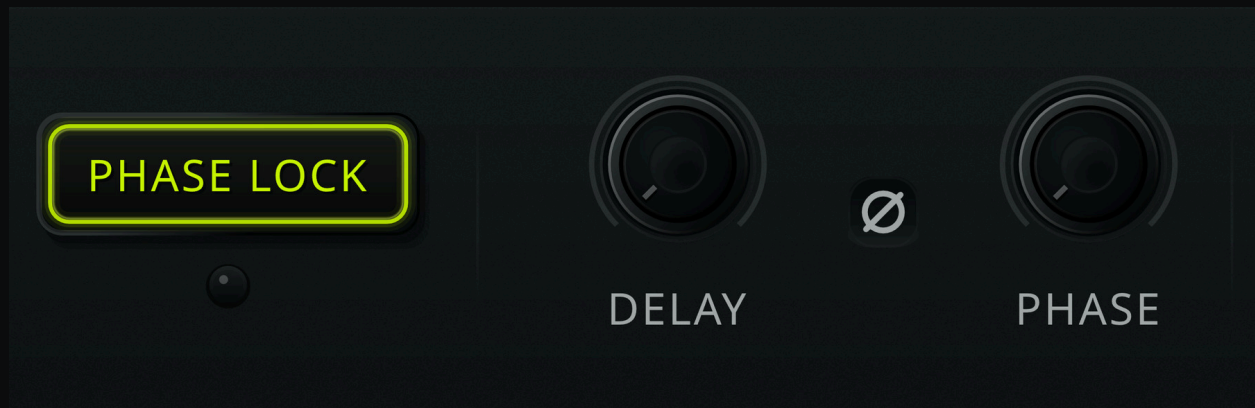
Multiband keeps stage 1's duck in the low end, below a crossover you set up to 250 Hz. Stages 2–4 always work on the full range. The 6, 12 and 24 buttons set how sharp the split is; **S** lets you hear the low band alone.



Mono Maker folds the finished low end to mono below the frequency you set, up to 150 Hz, and leaves everything above it as wide as it was. Click the knob to engage it.

Phase Lock

Lines up the kick with the bass as it returns, so the low end doesn't thin out where they meet.



- Press **PHASE LOCK** while the kick and bass are playing. It compares the two and sets Delay and polarity for you.
- The lamp shows how they sit together: green when they agree, amber and red as they fight, dark when either is silent.
- If nothing changes, there wasn't enough to measure. Play a few bars with both sounding and press again — or lower stage 1's depth if it removes all the bass under the kick.
- Refine by hand: **Delay** (0–20 ms) moves the processed signal later, **Phase** (0–360°) turns it without delaying it, and the polarity switch flips it. Point at a knob to read its value.

Adaptive

Phase Lock aligns the kick and the bass at *one* moment. Change the note — or let a free-running bass drift against the beat — and what landed well there can hollow out on the next hit. ADAPTIVE looks a fifth of a second ahead, works out the rotation that makes each coming handoff of kick and bass add up best, and puts it in place while the duck is still burying the bass, just under the kick. On a bass with harmonics, which no single rotation lines up at once, it can also shift the bass's timing: 2.5 ms at most, once per new note, and only when that beats rotating alone.

- It changes nothing you can hear it change. The correction only moves where the duck holds the bass at least 20 dB down, once per duck, crossing over in a few milliseconds, and it stays put while the bass plays. A note that changes in the middle of a beat waits for the next kick.
- It adds to what you set with Phase Lock or by hand, and only changes a handoff when it measures a better one than your own setting; otherwise it keeps yours.
- It needs the duck. With the stages off, or a duck too shallow to hide a change, there is nowhere safe to make one, and it does nothing.
- It works where the kick's tail reaches the bass. A kick with a long tail at a very different pitch from the bass never lines up with it for long, whatever the angle; there it finds little to gain and says so by changing little.
- If the DAW sends the bass's MIDI to the plugin — REAPER does when it sits after the synth — Adaptive takes each note as the start of a new one. In MIDI trigger mode the notes are the kick's, so there it listens to the audio instead.
- Switched on, it delays the plugin's output by 200 ms so it can look ahead. The plugin tells the DAW, which compensates, so the track stays in time with the rest of the session.
- Off by default, and off means off: no delay, and nothing about the sound changes.

Comparing

Use your DAW's bypass button to hear the plugin on and off, or switch one stage off with a click on its Mix slider to hear what that stage adds.

A deeper duck can feel more exciting at first. Listen for whether the kick and bass work better together in the full mix.

Practical tips

- Start with one stage. Add the next only when you know what it is for.
- Build from the widest division down.
- Judge the duck with the whole track playing, not with the bass soloed.
- If the bass disappears, switch a stage off before lowering every depth.
- Nothing ducking? Check a stage is on with its depth above zero — and in Audio mode, that the kick reaches the sidechain input.

Help and compatibility

SYSTEM	Windows 10 and 11. macOS 10.13 or newer, native on Apple Silicon and Intel. 64-bit.
FORMATS	CLAP, VST3 and AU. On macOS use <i>MULTISTAGE SIDECHAIN</i> in Logic and GarageBand and <i>MULTISTAGE SIDECHAIN FX</i> in other hosts.
INSTALLING	Windows: run the installer. macOS: open the disk image and run Install.command. Then rescan plugins in your DAW.
LICENSE	Three of your computers; activation does not expire. Free a computer from your <u>account</u> .
SETTINGS	Press the HK mark for UI Scale (25–200%, saved with your project) and updates.
SUPPORT	support@hakunaaudio.com · hakunaaudio.com/faq
ONLINE	hakunaaudio.com · product page · refund policy

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