



WAKE

Transient-triggered swell synthesizer



User Manual

Version 1.3

Reactive Audio

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Welcome to Wake

Wake is a transient-triggered swell synthesizer. For every hit it detects in your audio, it **generates** a new swell that rises into the transient and resolves exactly on it. Because the swell is synthesized rather than reshaped from the existing signal, it can do things no shaper can: bloom from the hit's own spectrum, brighten as it rises, and harmonize into a chord built from the sound that triggered it. A second module, Volume Shape, then sculpts the hit itself with a drawable gain curve.

In short: Wake is a swell instrument, not a dynamics processor. It adds movement that follows the performance, hit by hit.

Installation

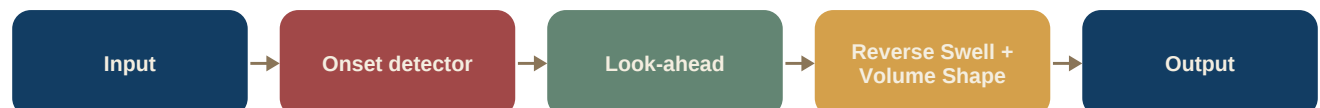
Wake ships as VST3 and AU plug-ins plus a Standalone application, for macOS (universal, 10.13+) and Windows 10/11 (64-bit).

Format	Location
macOS VST3	/Library/Audio/Plug-Ins/VST3/Wake.vst3
macOS AU	/Library/Audio/Plug-Ins/Components/Wake.component
macOS Standalone	Wake.app (copy to Applications)
Windows VST3	C:\Program Files\Common Files\VST3\Wake.vst3

Rescan plug-ins in your DAW after installing. The free demo is fully functional and mutes briefly every 30 seconds; entering your license key in the plug-in removes the gate.

How Wake works

Wake watches the live input for transients. When one is detected it schedules a swell that ends precisely on the hit, using look-ahead so the swell can build *before* the transient arrives. Your DAW's delay compensation keeps everything aligned. The look-ahead window is the plug-in's reported latency.



Signal flow: the detector runs on the live signal; the audio path is delayed so the generated swell and shape can be written ahead of each hit.

The interface

The header holds the factory-preset menu, a global Bypass, the Latency selector, and the version. Below it sit the two module panels (Reverse Swell on the left, Volume Shape on the right), each with a power button, a drawable curve, a preset menu, knobs, and a multiband Target slider. Input and output meters and an activity indicator show Wake responding to your material.

Triggering

These global controls decide which hits fire Wake. They are shared by both modules.

Control	Range	What it does
Threshold	-60 to 0 dB	Detection level. Peaks louder than this fire an event. Lower catches more, higher only the strongest hits.
Sensitivity	0 to 1	How reactive the detector is to smaller transients and changes in energy.
Min Interval	1 to 500 ms	Minimum time between triggers. Raise it to stop fast material from double-triggering.
Knee	0 to 1	Soft-knee response. 0 is a hard on/off trigger; higher ramps each event's strength by how far the hit exceeds the threshold.
Low / High Freq	20 Hz to 20 kHz	Frequency-range trigger filter. Only transients with new energy inside the band fire Wake (kicks only, snares only, and so on).

Humanization and response

Control	Range	What it does
Probability	0 to 1	Chance that any detected onset actually fires. Below 1 it thins events out for a looser, less mechanical feel.
Mutation	0 to 1	Per-event amplitude variation, so repeated hits are not identical.
Dynamics	0 to 1	How strongly each hit's own loudness and brightness shape its event. Higher means louder hits swell bigger and brighter hits stay shorter.

Reverse Swell

The heart of Wake. For each trigger it builds a swell and mixes it into the output, ending on the hit. The drawable curve is the swell's amplitude over time; the preset menu loads a starting shape you can then redraw.

Control	Range	What it does
Power	on / off	Enable or bypass the module.
Shape	6 presets + draw	Bloom, Sigh, Ghost, Spear, Wave, Pulse. Sets the swell's amplitude envelope; edit the curve freely.
Mode	Reverb / Spectral	Reverb is a reverse-reverb of the hit. Spectral resynthesizes a frozen-spectrum bloom from the hit's own timbre and unlocks Harmony.
Length	100 to 1400 ms	Swell duration. The maximum is bounded by the active Latency look-ahead.
Reverb	0 to 1	Amount of reverb baked into the swell (Reverb mode). Higher is more washed and ethereal.
Color	0 to 1	A lowpass that opens across the swell, so it brightens into the hit. 0 is off.
Mix	0 to 1	Wet level of the swell against the dry signal.
Harmony	9 options	Spectral mode only. The chord the swell blooms into (see below).
Direction	Before / After / Both	New in v1.3. Where the swell sits relative to the hit (see below).
Pitch	-24 to +24 st	New in v1.3. A pitch sweep across the swell (see below).
Target	20 Hz to 20 kHz	Multiband target. Restrict the swell to a band so it fills only part of the spectrum.

Harmony (Spectral mode)

Each swell can bloom into a chord built from the hit's timbre. Choose a fixed chord, or **Played (MIDI)** to follow a chord you hold on a MIDI track routed to Wake.

Harmony	Result
Unison	No harmony, a single voice.
Octave / Octave Down	Adds a voice an octave above or below.
Fifth / Power	A fifth, or root + fifth + octave.

Harmony	Result
Major / Minor	A full major or minor triad from the hit.
Octave Stack	Root plus two octaves for size.
Played (MIDI)	Follows the live MIDI chord you hold.

Direction (v1.3)

Before is the classic swell that builds into the hit. After turns it into a tail that triggers on the hit and decays out of it. Both fires a riser and a tail from one onset. A tail is not bound by the look-ahead, so it can run longer.

Pitch riser (v1.3)

A bipolar pitch sweep. Positive sweeps the swell up into the hit, resolving on its true pitch for a classic riser; negative dives down. In tail mode the sweep runs outward from the hit. It works in every mode.

Volume Shape

A drawable gain curve fired at each transient: ducks, pumps, tremolo, stutters. Where Reverse Swell adds new sound, Volume Shape sculpts the hit itself. On the curve, the centre line (0.5) is unity gain, below it ducks, above it boosts.

Control	Range	What it does
Power	on / off	Enable or bypass the module.
Shape	7 presets + draw	Duck, Pump, Fade In, Fade Out, Sine, Sawtooth, Reverse Saw. Editable curve.
Length	50 to 2000 ms	Duration of the gain event after each onset.
Intensity	0 to 1	Effect amount. 0 is no change, 1 is the full drawn shape.
Mix	0 to 1	Wet / dry blend of the shaped signal.
Target	20 Hz to 20 kHz	Multiband target. Duck or pump only the chosen band.

Latency and mixing

Because a swell builds before the hit, Wake needs look-ahead, which is reported to the host as latency and compensated automatically for mixing. The Latency selector trades maximum swell length against responsiveness.

Mode	Use it for
Low (250 ms)	Tightest response, best for playing or MIDI-driven harmony. Shortest maximum swell.
Medium (600 ms)	A balance of response and swell length.
High (1.5 s)	Longest swells. The default and the most cinematic setting.

Tip: Use High while mixing for grand builds; drop to Low when you are driving Wake from a MIDI keyboard so the harmony responds as you play.

MIDI control

In Spectral mode, set Harmony to Played (MIDI), route a MIDI track to Wake, and every hit's swell harmonizes to the chord you hold. Routing MIDI to an audio effect is painless in Bitwig, Ableton, FL and Reaper, and fiddlier in Logic, where AU effects do not take MIDI gracefully. Pair this with a low Latency setting for the most playable response.

Presets, tips and recipes

Wake ships with factory presets in the header menu, and your DAW saves the full plug-in state (including both drawn curves) with the project.

A few starting points:

- **Drum risers:** Spectral mode, Direction Before, a little Pitch up, Color around halfway, target the band you want to lift.
- **Reverse-reverb tails:** Reverb mode, Direction After, longer Length, higher Reverb.
- **Harmonized vocal blooms:** Spectral, Harmony Major or Played (MIDI), modest Mix.
- **Tighten busy material:** raise Min Interval and lower Probability so only some hits bloom.

Troubleshooting

Symptom	Fix
Nothing happens	Raise input level or lower Threshold; confirm a module is enabled and Mix is up; check the trigger frequency range is not excluding your material.
Swell feels late	That is the look-ahead latency. Enable delay compensation in your DAW, or choose a lower Latency mode.
MIDI harmony silent	Confirm Spectral mode and Harmony set to Played (MIDI), and that MIDI is routed to the plug-in (tricky in Logic).
Windows install warning	The installer is not yet code-signed, so SmartScreen may warn. Choose More info, Run anyway.

Specifications

Item	Detail
Formats	VST3, AU, Standalone
Platforms	macOS 10.13+ (universal), Windows 10/11 (64-bit)
Channels	Mono and stereo
Version	1.3 (this manual)
Maker	Reactive Audio · nberley@gmail.com

Thank you for using Wake. Questions and feedback are always welcome.