KNIGHTSNARE

Knight 33609

Stereo Limiter / Compressor — User Manual



Audio effect plugin for Mac (AU, VST3), Windows (VST3) and Linux (VST3).
knightsnare.com
Inspired by the classic Neve 33609. Knight 33609 is an independent Knightsnare product: not affiliated with or endorsed by AMS Neve. It is a model built from the published manual, not a copy of the original circuit.

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1. Welcome

Knight 33609 is a two-channel limiter and compressor in the style of the famous 1970s British console unit, the one that has glued mix buses together for decades. Each channel has a **limiter** for catching peaks and a **compressor** for smoothing and thickening, plus gain-reduction meters, stereo linking and an external side-chain.

Like the hardware, every knob is a click-stop switch, so settings are easy to repeat. The gain cell adds a gentle, musical colour that grows as it works harder, and it runs oversampled so it stays clean.

2. Installing

Mac

Open the downloaded zip and double-click the installer. It installs the Audio Unit (Logic, GarageBand) and the VST3 (Ableton Live, Cubase, Studio One, Reaper and others). Then open your DAW and let it rescan its plug-ins. The installer is signed and approved by Apple, so macOS won't warn you. macOS 11 or later, Apple Silicon and Intel.

Windows

Unzip the download and copy the **.vst3** into `C:\Program Files\Common Files\VST3`, then rescan plug-ins in your DAW. 64-bit Windows 10 or 11.

Linux

Unzip the download and copy the **.vst3** into `~/.vst3` (create the folder if needed), then rescan in your DAW (for example Reaper or Bitwig). 64-bit, Ubuntu 22.04 or newer, or a similar distribution.

> **Tip** This is an audio effect. Insert it on an audio track, a bus or an aux / return channel.

3. The panel



Knight 33609. Channel 1 on the top row, channel 2 on the bottom.

Area	What it does
Top bar	SIDECHAIN (OFF / EXT), the preset arrows and name, SAVE, and STEREO LINK.
LIMIT 1 / LIMIT 2	Threshold, recovery, limit in, attack fast / slow.
COMPRESS 1 / COMPRESS 2	Threshold, recovery, gain, ratio, compress in, attack fast / slow.
Switch blocks	Bypass for each channel, mono / stereo, external / internal control.
Meters	Gain reduction for each channel, 0 to 20 dB.
Power lamp	Click to switch the unit off (true bypass) and on again.

- Drag or scroll a knob to click it round; the value pops up while you turn. Double-click returns it to its default.
- Click a toggle switch to flip it.
- The window can be resized from 40% to 100%.

4. Limiter and compressor controls



LIMIT section.

Limiter	Settings
threshold dBu	+4 to +15 dBu in 1 dB steps. Lower = more limiting.
recovery ms	50, 100, 200 or 800 ms, or a1 / a2 automatic (see below).
limit in	Lever down = the limiter is working.
attack fast / slow	Fast (2 ms) catches the sharpest peaks; slow (4 ms) lets a little more snap through.



COMPRESS section.

Compressor	Settings
threshold dBu	-20 to +10 dBu in 2 dB steps. Lower = more compression.
recovery ms	100, 400, 800 or 1500 ms, or a1 / a2 automatic.
gain	0 to 20 dB of make-up gain, to bring the level back up after compressing.
ratio	1.5:1, 2:1, 3:1, 4:1 or 6:1, with a soft knee: gentle near the threshold, full ratio from 5 dB above it.
compress in	Lever down = the compressor is working.
attack fast / slow	Fast is 3 ms. Slow is 6 ms and also stops low bass from driving the compressor, so the kick and bass don't pump the mix.

Automatic recovery (a1, a2): after a short peak it recovers quickly, and after a long stretch of loud material it recovers slowly, so it's both fast and smooth. a1 is 100 ms / 2 s; a2 is 50 ms / 5 s.

5. Stereo link, bypass and power



The switch blocks, meters and power lamp.

- **STEREO LINK** (top bar) or the **mono / stereo** switch: in stereo, both channels always get the same gain reduction, so the stereo image stays put, and the two channels' controls move together. Turning link on copies channel 1's settings to channel 2. Off gives two independent channels (dual mono), for example to process two different signals.
- **bypass / in**: up passes that channel straight through, unprocessed.
- **Power lamp**: click it to switch the whole unit off (true bypass); the lamp and LEDs go dark.
- The **LEDs** are red in internal control and green in external control, as on the original.

6. Side-chain: let another track do the ducking

With the side-chain, another track, usually the kick, controls the compression, so this track dips out of the way on every hit.

1. Set **SIDECHAIN** in the top bar to **EXT** (it's the same control as the external / internal switch).
2. In your DAW, send the kick to the plugin's side-chain input. **Logic:** the side-chain menu at the top right of the plugin window. **Ableton Live:** open the device's side-chain section (the triangle in its title bar), switch Sidechain on and choose the kick track in Audio From. **Other DAWs:** send the track to the plugin's second input.
3. Turn the compressor's threshold down until you hear the ducking you want.

The dot next to SIDECHAIN shows what's happening: dark when OFF, amber on EXT while no side-chain signal is arriving (nothing is ducked then), and green, flashing on every hit, when the key signal arrives. Presets never change the side-chain setting.

7. Presets



The top bar: SIDECHAIN, the preset arrows and name, and SAVE.

- The **arrows** step to the previous or next preset. Click the **name** for the full list: Init, the 30 factory presets by category, your own presets, and Save As, Delete and Show Preset Folder.
- A small dot after the name means you've changed something since loading it.
- **SAVE** asks for a name and stores your settings as your own preset. Your DAW session also reopens exactly as you left it.
- **Init** puts every switch back to its starting position.

Factory presets: Mix Bus Glue, Mix Bus Gentle, Mix Bus Punch, Mix Bus Tape Glue, Transparent Leveller, Drum Bus Glue, Drum Bus Smash, Room Mics Crush, Kick Control, Snare Crack, Parallel Crush, Bass DI Even, Bass Amp Thick, Lead Vocal Smooth, Vocal Forward, Backing Vocals Tuck, Broadcast Voice, Podcast Level, Acoustic Guitar Even, Electric Guitar Sustain, Piano Gentle, Strings Swell, Synth Pad Glue, Brass Tame, Mastering Limit, Loud Master, Peak Limiter Only, Brickwall Safety, Dual Mono Tracks and Side-Chain Pump (which uses the side-chain input).

8. Getting good results

Job	Starting point
Mix bus glue	Compressor in, ratio 2:1, recovery a1, attack slow; lower the threshold until the meter shows 1-3 dB, then match the level with gain.
Drum bus punch	Ratio 4:1, attack slow, recovery 100-400 ms, 4-6 dB of reduction.
Vocals	Ratio 3:1, attack fast, recovery a2, 3-6 dB of reduction; add the limiter with a high threshold to catch the loudest words.
Peak safety on a master	Limiter in at +4 to +8 dBu, attack fast, recovery a1; compressor out.

Tip Watch the meters: most of the time a few dB of reduction is all you need. Use the power lamp to compare with and without.

9. Troubleshooting

Problem	Try this
Nothing happens	Check the power lamp is lit, bypass is down (in), and limit in or compress in is switched on.
Side-chain doesn't duck	SIDECHAIN must be on EXT and your DAW must send a signal to the side-chain input. If the dot is amber, no signal is arriving.
The two channels behave differently	Turn on STEREO LINK.

About

Knight 33609 is made by Knightsnare. It is inspired by the Neve 33609, built from its published manual and measurements and written from scratch; no circuits, sounds or code from the original are copied. Neve and 33609 are trademarks of AMS Neve. Knight 33609 is an independent product: not affiliated with or endorsed by them.