KNIGHTSNARE

Knight Duo

Dual Compressor / Limiter / Gate — User Manual



Audio effect plugin for Mac (AU, VST3), Windows (VST3) and Linux (VST3).
knightsnare.com
Inspired by the Alesis 3630. Knight Duo is an independent Knightsnare product: not affiliated with or endorsed by Alesis. It is a model built from the published reference manual.

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1. Welcome

Knight Duo is a two-channel compressor, limiter and noise gate in the style of the famous 1990s studio workhorse that sat in every rack. It's simple and fast: set the threshold and ratio, choose Peak or RMS and Hard or Soft, and add the gate to clean up noise and spill.

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 Duo: channel A and channel B.



POWER and channel A, up close.

Control (each channel)	Range / what it does
THRESHOLD	-40 to +20 dBu. The level where compression starts; lower = more compression.
RATIO	1:1 (none) up to infinity:1, with 2:1, 4:1 (at noon), 8:1 and 20:1 along the way.
ATTACK	0.1 to 200 ms, how fast it reacts (Peak mode only).
RELEASE	0.05 to 3 seconds, how fast it recovers (Peak mode only).
OUTPUT	-20 to +20 dB of level after compression.
GATE	Off (fully left) up to -10 dBu: sounds below this level are faded out.
COMP / LIMIT button	Lit = the compressor is in; dark = bypassed (the gate keeps working).
PEAK / RMS button	Lit = Peak: reacts to peaks, using ATTACK and RELEASE. Dark = RMS: follows the average level with its own smooth timing.
HARD / SOFT button	Lit = hard knee (firm); dark = soft knee (gentle, 6 dB wide).
GAIN REDUCTION	11 LEDs from 1 to 30 dB.
STEREO LINK	Joins the two channels (section 6).
POWER rocker	Off = clean pass-through, LEDs dark.

- Knobs: drag, Shift-drag for fine moves, mouse wheel, double-click for the default; the value pops up while turning.
- The window can be resized from 60% to 160%.

4. Compressor and limiter

1. Make sure COMP / LIMIT is lit.
2. Set RATIO (start at 4:1, noon) and turn THRESHOLD down until the GAIN REDUCTION LEDs show the amount you want.
3. Choose **PEAK** to control punchy, spiky sounds with ATTACK and RELEASE, or **RMS** for smooth, natural leveling.
4. Turn OUTPUT up to make up the level.

To make it a **limiter**, the way the original does it: turn RATIO toward infinity:1, light HARD and PEAK, and set a fast attack. Nothing then gets past the threshold.

5. The gate

- Turn GATE up from Off until noise or spill between notes disappears, but the notes themselves still come through.
- The lamp beside GATE glows green while the gate is open and turns red as it closes.
- Hold Alt (Option on Mac) and drag GATE to set how quickly it fades closed, from 20 ms (tight, for drums) to 2 seconds (smooth, for sustained sounds).
- The gate keeps working even with COMP / LIMIT off, so you can use Knight Duo as a gate alone.

6. Stereo link and side-chain

- **STEREO LINK** (the panel button or the chip in the top bar): the two channels move together. Turn a control on either channel and the other follows, and either channel's signal triggers compression and gating of both, so the stereo image holds. Switching it on copies channel A onto B. It's on by default.
- Turn it off to use A and B as two separate processors, for example on two different signals.
- **SIDECHAIN** set to **EXT**: another track (for example the kick) drives the compression, so this track ducks on every hit.

1. Set SIDECHAIN in the top bar to EXT.
2. Send the other track 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 track in Audio From. **Other DAWs:** send the track to the plugin's second input.
3. Lower THRESHOLD until the ducking is as deep as you want.

The dot next to SIDECHAIN is dark when OFF, amber on EXT while no side-chain signal is arriving, and green, flashing on every hit, when it arrives.

7. Presets

- The arrows step through presets; click the name for the list: Init, 30 factory presets in seven groups (Drums, Vocals, Bass, Instruments, Mix Bus, Gate, Utility), 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** stores your own.
- **Init**: threshold -10 dBu, 4:1, Peak, attack 3 ms, release 150 ms, gate off.
- Presets never change the side-chain setting.

8. Getting good results

Job	Starting point
Snare or toms with spill	Gate at about -30 dBu with a 50 ms fade, ratio 4:1, Peak, attack 5 ms, release 150 ms.
Vocals	RMS, Soft, ratio 3:1, 3-6 dB of reduction.
Bass	Peak, ratio 4:1, attack 10 ms, release 200 ms.
Peak limiter	Ratio infinity:1, Hard, Peak, attack 0.1 ms, release 100 ms, threshold just above your loudest normal peaks.

9. Troubleshooting

Problem	Try this
No compression	Check POWER is on and COMP / LIMIT is lit, and lower THRESHOLD.
Notes are being cut off	Turn GATE down, or Alt-drag GATE for a longer fade.
ATTACK and RELEASE do nothing	They only work in Peak mode: light PEAK / RMS.
Side-chain doesn't duck	SIDECHAIN must be on EXT and your DAW must send a signal to the side-chain input.

About

Knight Duo is made by Knightsnare. It is inspired by the Alesis 3630, built from its reference manual and written from scratch; no circuits, sounds or code from the original are copied. Alesis and 3630 are trademarks of Alesis. Knight Duo is an independent product: not affiliated with or endorsed by them.