KNIGHTSNARE

Knightstress

Stereo Compressor — User Manual



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

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1. Welcome

Knightstress is a modern classic compressor: anything from clean and transparent to brick-wall limiting and heavy, tape-like distortion. It's laid out as two stacked units, like the stereo pair of the original. The top unit is the left channel and the bottom unit is the right.

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

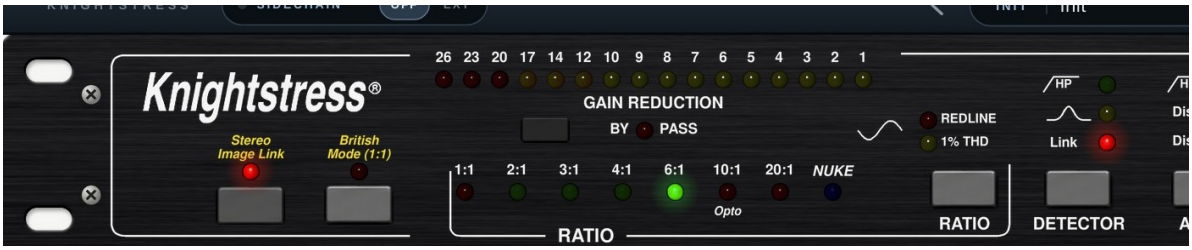
Unzip the download and copy the **.vst3** into `~/.vst3` (create the folder if needed), then rescan in your DAW (for example Reaper or Bitwig). 64-bit, Ubuntu 22.04 or newer, or a similar distribution.

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

3. The panel



Knightstress: the top unit is the left channel, the bottom unit the right.



Left half of a unit: Image Link, British Mode, gain reduction, bypass, ratio and the mode keys.



Right half: the four knobs and POWER.

Part	What it does
GAIN REDUCTION	16 LEDs showing 1 to 26 dB of reduction.
BYPASS key	Passes the signal through untouched; the BY-PASS lamp turns red.
RATIO key and LEDs	Steps through the eight ratios (right-click steps back).
REDLINE / 1% THD	Yellow at 1% distortion, red at 3% or when the output overloads.
DETECTOR key and LEDs	What the compressor listens to: HP, 6K band and Link.
AUDIO key and LEDs	Colour and filtering of the sound itself: HP, Dist 2 and Dist 3.
INPUT, ATTACK, RELEASE, OUTPUT	The four knobs, read at the white mark above each.
Stereo Image Link, British Mode	Keys with lamps; see sections 5 and 6.
POWER rocker	Switches each unit on or off.
Top bar	SIDECHAIN, the preset arrows and name, SAVE, and STEREO LINK.

- Knobs: drag, Shift-drag for fine moves, mouse wheel, double-click for the default. The value pops up while turning.
- Keys: click. The new mode shows briefly.

4. The knobs

Knob	What it does
INPUT	How hard you drive the compressor. Turn it up for more compression (and more colour).
ATTACK	How fast it grabs, from 0.05 ms to 30 ms. Low = catches every transient; high = lets the punch through.
RELEASE	How fast it lets go, from 0.05 to 3.5 seconds (up to about 16 seconds at 10:1 Opto). Fast release on bass adds distortion, as on the original.
OUTPUT	Level after compression; use it to match the level for a fair comparison.

Init sets every knob to 5, which is unity: no change in level until it starts compressing.

5. Ratio, detector and audio modes

Ratio	Character
1:1	No compression, just the warmth of the circuit (and the distortion modes if on).
2:1, 3:1	Very gentle, long soft knees. Great for vocals and the mix bus.
4:1, 6:1	General-purpose compression. 6:1 is the Init setting.
10:1 Opto	Smooth, slow-recovering optical-style compression.
20:1	Limiting: almost a brick wall.
NUKE (blue)	Total limiting: the level barely changes however hard you hit it.
Key	**States (each click moves to the next)**
DETECTOR	Norm, HP (the compressor ignores the low end, so bass doesn't pump everything), 6K (reacts more to harsh 6 kHz content, a de-esser), HP + 6K, then the same four with Link (both units react together).
AUDIO	Norm, HP (an 80 Hz low cut on the sound), Dist 2 (warm 2nd-harmonic tube colour), Dist 2 + HP, Dist 3 (gritty 3rd-harmonic tape colour), Dist 3 + HP.
British Mode	The famous all-buttons-in sound: lower threshold, near-limiting, over-compression and faster release. Great on room mics and drums.

6. Stereo: two units as a pair

- **STEREO LINK** (top bar) and the **Stereo Image Link** key (far left of the top unit) are the same switch; the lamps on both units show when it's on. **On:** the two units work as a stereo pair. Turn any control on either unit and the other follows, and both compress identically, so the stereo image holds. Switching it on copies the top unit to the bottom.
- **Off:** two independent units (dual mono), for example to treat the left and right channels differently.
- **Link** in the DETECTOR key is separate: it only joins the two detectors, so both units apply the larger amount of reduction.
- Presets don't change the link setting.

7. Side-chain

With 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. Turn up INPUT 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.

8. Presets

- The arrows step through presets; click the name for the list: Init, 30 factory presets in six groups (Drums, Vocals, Bass, Instruments, Mix Bus, Character), 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** names and stores your settings. Your DAW session also reopens exactly as you left it.
- Presets never change the side-chain setting.

9. Getting good results

Job	Starting point
Punchy drums	Ratio 6:1, ATTACK 5-7, RELEASE 2-4, AUDIO Dist 2. Turn INPUT up until 5-8 LEDs light.
Smashed room mics	British Mode on, or NUKE, with fast attack and release. Blend it in on a parallel bus.
Vocals	Ratio 3:1 or 4:1, DETECTOR HP, ATTACK 3-5, RELEASE 5; add DETECTOR 6K to tame harsh S sounds.
Bass	Ratio 4:1, ATTACK 5, RELEASE 4-6, AUDIO Dist 3 for growl.
Mix bus	Ratio 2:1, DETECTOR HP, slow attack, 1-3 LEDs of reduction, STEREO LINK on.

Tip Keep an eye on REDLINE: yellow means a little distortion (often nice), red means it's being pushed hard.

10. Troubleshooting

Problem	Try this
No compression	Check the POWER rockers are on, BYPASS is off and the ratio isn't 1:1. Turn INPUT up.
Left and right sound different	Turn on STEREO LINK.
Side-chain doesn't duck	SIDECHAIN must be on EXT and your DAW must send a signal to the side-chain input.

About

Knightstress is made by Knightsnare. It is inspired by the Empirical Labs Distressor, built from its published manual and written from scratch; no circuits, sounds or code from the original are copied. Distressor is a trademark of Empirical Labs. Knightstress is an independent product: not affiliated with or endorsed by them.