KNIGHTSNARE

Knight Phase 74

Dual Optical Phaser — User Manual



Audio effect plugin for Mac (AU, VST3, Standalone), Windows (VST3) and Linux (VST3).
knightsnare.com
Inspired by the 1970s Mu-Tron Bi-Phase. Knight Phase 74 is an independent Knightsnare product: not affiliated with or endorsed by the makers of the original.

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1. Welcome

Knight Phase 74 is two phasers in one box, modelled on the legendary 1970s dual phaser. Each phasor is swept by a light-and-photocell (optical) circuit, which gives the sweep its liquid, slightly uneven vintage movement. Use one for a classic swirl, or both for wide stereo, deep series phasing or two independent effects.

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 Phase 74.

Section	What's in it
Sweep Generator 1	RATE, RATE CONTROL (MAN or SYNC) and SHAPE (sine or square).
Sweep Gen 2	SHAPE and RATE.
Phasor A	DEPTH, FEEDBACK and SWEEP (GEN 1 or PED).
Phasor B	DEPTH, FEEDBACK, PHASOR B INPUT (routing), SWEEP (GEN 1, GEN 2 or PED) and SWEEP SYNC (NORM or REV).
Front face	INPUT and OUTPUT volume (plus or minus 24 dB, double-click for 0 dB), the IN / OUT level meter, and the program display with its arrows.
POWER	The red rocker: a click-free bypass. The red LEDs follow each phasor's sweep.

4. Sweep generators

- **RATE**: how fast the sweep moves, from 0.02 Hz (one sweep every 50 seconds) to 12 Hz (a fast warble).
- **RATE CONTROL** on Generator 1: **MAN** runs freely at the RATE you set. **SYNC** locks it to your song's tempo, and RATE then picks a note value from 4 bars down to 1/16.
- **SHAPE**: sine for a smooth swirl, square for a choppy, two-position jump.
- Generator 2 gives Phasor B its own independent sweep, so the two can move at different speeds for complex, evolving textures.

5. Phasor A and Phasor B

- **DEPTH**: how far the sweep travels. Low = subtle; high = big, obvious sweeps.
- **FEEDBACK**: resonance. Turn it up for sharper, whistling, more vocal peaks.
- **SWEEP**: what moves the phasor. **GEN 1** or **GEN 2** (Phasor B only) use a sweep generator. **PED** parks the phasor wherever the *A Pedal* or *B Pedal* parameter puts it: map that to an expression pedal, a MIDI controller or a DAW automation lane to sweep it by hand.
- **SWEEP SYNC** (when B is on GEN 1): **NORM** sweeps B in step with A; **REV** sweeps B half a cycle apart, for a wide stereo movement.

6. Routing: three ways to use two phasors

PHASOR B INPUT	What happens
IN A	Both phasors hear the input. A goes to the left output and B to the right: a wide stereo phaser, like the original's two outputs.
OUT A	Series: the signal goes through A, then B, for deep, intense phasing.
IN B	Dual: the left input goes through A and the right through B, two separate phasers for two separate signals.

Some settings have no knob on the original panel. The programs set them, and you can automate them in your DAW: Opto, Colour, Stages, Dry/Wet, Output, each phasor's Mix and On, and Generator 2's sync.

7. Programs

Click the red program display for the list, or use the arrows beside it. Each program sets every sound control, so it always sounds the same; it doesn't change POWER or the INPUT and OUTPUT volumes.

Twin Orbit, Wide Galaxy, Liquid Resonance, Eclipse, Slow Comet, Pulsar (Synced), Manual Notch, Spacewalk Vocal, Gentle Swirl, Jet Stream, Funk Chop, Rotary Drift, Underwater, Psych Guitar '69, Quarter Note Pump, Stereo Shimmer, Slow Phase Pad, Throb Machine, Barely There, Clavinet Quack, Two Moons, Feedback Scream, Half-Bar Sweep, Drum Bus Air, Bass Sweeper, Glassy Sweep, Tape Room, Morse Code, Cathedral Sweep and Knight Ride.

8. Getting good results

Sound	Starting point
Classic guitar swirl	IN A, slow RATE (0.3-1 Hz), sine, DEPTH high, FEEDBACK moderate.
Wide stereo pad	IN A, SWEEP SYNC REV, very slow RATE.
Tempo-locked pump	RATE CONTROL SYNC at 1/4 or 1/8, square SHAPE.
Jet / flanger-like whoosh	OUT A (series), high FEEDBACK, slow sweep.

Tip Watch the IN / OUT meter: high FEEDBACK can make the effect louder. Bring OUTPUT down to compare fairly.

About

Knight Phase 74 is made by Knightsnare. It is inspired by the 1970s Mu-Tron Bi-Phase and written from scratch; no circuits, sounds or code from the original are copied. Mu-Tron and Bi-Phase are trademarks of their respective owners. Knight Phase 74 is an independent product: not affiliated with or endorsed by them.