

PHASIS



NATIVE INSTRUMENTS

THE FUTURE OF SOUND

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1 Welcome

PHASIS is part of Native Instruments' KOMplete Instruments & Effects series. Designed for use in your host, PHASIS is an enhanced true-stereo phaser that can be used to spice up any signal. Enjoy!

Manual Conventions

This section introduces you to the signage and text highlighting used in this manual.

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) and paths to locations on your hard disk or other storage devices is printed in *italics*.
 - Text appearing elsewhere (labels of buttons, controls, text next to checkboxes etc.) is printed in **blue**. Whenever you see this formatting applied, you will find the same text appearing somewhere on the screen.
 - Important names and concepts are printed in **bold**.
 - References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Enter]").
- Single instructions are introduced by this play button type arrow.
- Results of actions are introduced by this smaller arrow.

Furthermore, this manual uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing these notes let you see what kind of information is to be expected:



The speech bubble icon indicates a useful tip that may often help you to solve a task more efficiently.



The exclamation mark icon highlights important information that is essential for the given context.

2 About

Phasers are used to bring life to static sounds by adding spectral animation and complex filtering to the input signal, ranging from classic Krautrock guitars to psychedelic FX sounds. They are based on a series of all-pass filters, with built-in modulation of the all-pass filter's frequencies. This creates peaks and notches in the frequency spectrum that can be altered over time. Consequently, the harmonic structure of the input signal is transformed and animated, which adds a layer of complexity to the sound and makes it more lively and interesting.

As one of the most commonly used guitar and studio effects, various implementations of the phaser found their way into studio rack processors and guitar pedals. PHASIS is a new take on the concept with additional features that have been carefully chosen to allow for more sophisticated and extreme sounds than possible with common phasers, while staying true to the ease of use and clarity associated with these devices.

PHASIS features a scalable amount of all-pass filters, allowing for anything from one to twelve pairs of peaks and notches in the frequency spectrum. The input signal's stereo image is preserved, however the peaks and notches can also be panned to widen the sound. The internal modulation system lets you not only affect the relative center frequency of all peaks and notches at the same time ([Center](#) parameter), but also their spacing to each other ([Spread](#) parameter). With features like [ULTRA](#) mode or the [Spread](#) parameter, PHASIS' sonic capabilities go way beyond the scope of traditional phasers, allowing you to also create sounds reminiscent of FM synthesis or vowel filters, respectively.

3 Overview



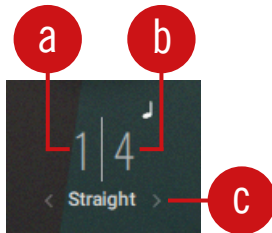
Overview of PHASIS

(1) **Header:** The Header provides global functions related to preset management and plug-in behavior. For more information, refer to [4, Header and Presets](#).

(2) **Stereo:** Creates a wide and lively stereo image by adding a phase offset to the modulation applied to [Center](#) (6) and [Spread](#) (9) between the left and right stereo channels. In center position, the phasing effect does not alter the stereo image. Turning the knob to the left widens the stereo image and lets the phasing effect appear to move from right to left. Turning the knob to the right lets the phasing effect appear to move from the left to right. **Stereo** does not have an effect if [Amount](#) (5) is set to 0.

(3) **LFO Sync:** Synchronizes the modulation to the host tempo and replaces the [Rate](#) knob (4) with the LFO Sync controls.

(4) **Rate**: Adjusts the frequency of the modulation applied to **Center (6)** and **Spread (9)**. The modulation effect becomes more pronounced as **Amount (5)** is increased. When LFO Sync (3) is enabled, modulation is synchronized to the host and the **Rate** knob is replaced by the LFO Sync controls:



The Counter (a) and Divider (b) set the speed of modulation in musical notes relative to the host tempo. The Counter sets the number of notes, while the Divider sets the note value. The Sync Mode (c) sets the time value, or subdivision, for the chosen note value. For example, 1|4 in Sync Mode **Straight** means that the modulation repeats its cycle after one quarter note, and 3|2 in Sync Mode **Triplet** means that the modulation repeats its cycle after three half note triplets.

(5) **Amount**: Adjusts the amount of modulation applied to **Center (6)** and **Spread (9)**, adding movement to the phasing effect. The modulation can be morphed between the two parameters with the **Mod Mix** slider (7).

(6) **Center**: Shifts the peaks and notches in the frequency spectrum by changing the frequencies of the all-pass filters that create the phasing effect (relative to the **Center** frequency).

(7) **Mod Mix**: Morphs the modulation between **Center (6)** and **Spread (9)**. Moving the slider to the left increases the amount of modulation applied to **Center**, moving the slider to the right increases the amount of modulation applied to **Spread**. In middle position, the amounts of modulation applied to both **Center** and **Spread** are the same.

(8) **Spread Modulation Polarity**: Inverts the polarity of the modulation applied to **Spread (9)**, hence reversing its effect in relation to the modulation applied to **Center (6)**.

(9) **Spread**: Adjusts the density of the peaks and notches in the frequency spectrum. Turning the knob to the left moves the peaks and notches closer to each other. Turning the knob to the right moves the peaks and notches further apart from each other.

(10) **Notches**: Sets the number of peaks and notches in the frequency spectrum.

(11) **Feedback**: Adjusts the amount of feedback, or resonance, applied to the all-pass filters that create the phasing effect. Turning up Feedback makes the peaks and notches in the frequency spectrum more pronounced.

(12) **Mix**: Blends between the input signal and the effect signal by means of an equal-power crossfade.

(13) **Invert**: Swaps the position of the peaks and notches in the frequency spectrum.

(14) **ULTRA** mode: Extends the parameter ranges for **Rate** (4) and **Center** (6), allowing for more extreme modulation frequencies across a wider frequency range. By increasing **Rate** (4) to audio frequencies, you can add new harmonic content to the input signal, similar to the sounds possible with FM synthesis.

(15) **Display**: Shows the number of **Notches**, their position relative to the **Center** frequency, and their **Spread** in the frequency spectrum (from left to right), including the **Amount** and **Rate** of the modulation. If **Stereo** (2) is used to add a phase offset to the modulation, this is indicated by a vertical split between the **Notches**.

4 Header and Presets

The Header provides global functions related to preset management and plug-in behavior.



Preset functions in the Header

(1) **Main menu:** Lets you save and delete user presets, as well as copy settings of the A/B Comparison switch (see below). From here, you can also access the User Preset Folder. For more information, see section [4.2, Saving Presets](#).

The following additional entries are also available:

- *Learn more about Phasis...:* Lets you download the PHASIS Manual in your default internet browser.
- *Touchscreen Mode:* Enables a compatibility mode for touch screens and pen tablets.
- *View Size:* Lets you choose from five different sizes for the plug-in and save the current size as default value.

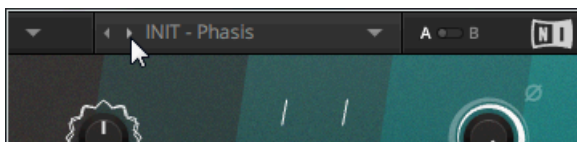
- *Usage Data Tracking*: Here you can learn more about usage data tracking and enable it to help us improve our products.
- (2) **Preset menu**: Gives you access to all factory and user presets. For more information, see section [↑4.1, Loading Presets](#).
- (3) **A/B Comparison switch**: Lets you compare two sets of settings **A** and **B**. For more information, see section [↑4.3, Comparing Parameter Settings](#).
- (4) **NI logo**: Opens the About screen, which shows the version number of the KOMPLETE KONTROL software.

4.1 Loading Presets

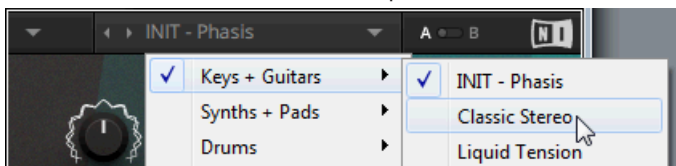
PHASIS comes with a wide range of factory presets that make full use of its sonic possibilities. You can put them to use with your music right away, or explore their sound and settings to make yourself familiar with PHASIS.

All presets can be loaded directly from the PHASIS user interface by using the Preset menu, including your user presets.

- To cycle through all presets and load them one after the other, click the left and right arrows on the left side of the Preset menu.



- Alternatively, click on the Preset menu to open a list of all available presets. Any preset can be loaded by selecting it from the list. Both various categories of factory presets and *User Presets* are available in separate submenus.

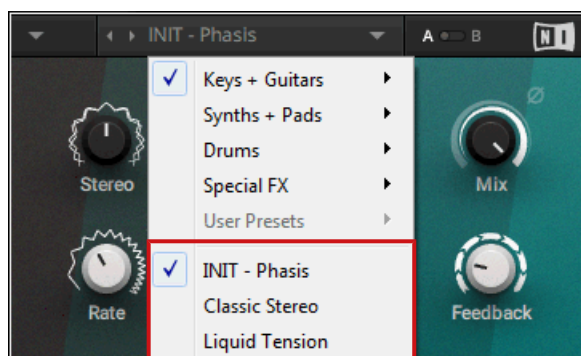




The *INIT* preset contains basic settings for PHASIS that are useful as a starting point for creating your own phaser sounds.

Quick Access List

Below the *Factory Presets* and *User Presets* you'll find the Quick Access list. If you load a preset from the *User Presets* submenu, the next time you open the Preset menu the Quick Access list will show all user presets. If you load a preset from the *Factory Presets* submenu, the next time you open the Preset menu the Quick Access list will show all factory presets.



The Quick Access list in the Preset menu

4.2 Saving Presets

If you have created a phaser sound you want to keep for later use, you can save it to the User Preset Folder. All presets in the User Preset Folder are available under *User Presets* in the Preset menu. This way you can always access your personal library of phaser sounds directly from the PHASIS user interface.

To save a user preset:

1. Open the Main menu by clicking on the arrow symbol in the left corner of the Header and select *Save as...*
2. Enter a new name for your preset in the [Save New Preset](#) dialog box.
3. Click [Ok](#) to finish the process and close the dialog box.

→ Your user preset is saved in the user preset folder.



You can delete any of your user presets by loading the preset and then selecting *Delete* from the Main menu. Note that you cannot delete the factory presets.

User Preset Folder

The User Preset Folder contains all of your saved user presets. You can copy, delete or change the name of user presets directly in the folder on your hard drive.



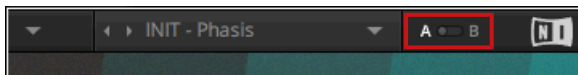
PHASIS needs to be reloaded to reflect any changes made in the User Preset Folder.

- ▶ To show the User Preset Folder on your hard drive, open the Main menu by clicking on the arrow symbol in the left corner of the Header and select *Show User Preset Folder*.

→ A new system window opens showing the User Preset Folder on your hard drive.

4.3 Comparing Parameter Settings

The **A/B Comparison** switch can help you to fine-tune your settings. It is located to the right of the Preset menu in the Header.



The A/B Comparison switch in the Header

It provides two temporary memory slots **A** and **B** which allow you to quickly switch between different states of your parameter settings. This makes it easy to compare settings and find the ones you like.

To use the A/B Comparison switch:

1. Set up a phaser sound you like. All parameter settings are automatically saved to slot **A**.
2. Click on **B** to switch to the second slot. When you switch to slot **B** for the first time, it automatically takes over all the settings from slot **A**.

3. Adjust parameters to create an alternative phaser sound. All settings are automatically stored in slot B.
 4. Click A and B to switch between the two variations of your phaser sound.
- If you have found a phaser sound you like, you can save the settings from the currently selected memory slot of the A/B Comparison switch as a preset.



If you want to overwrite the settings saved in the other slot with the settings saved in the currently selected slot, open the Main menu by clicking on the arrow symbol in the left corner of the Header and select *Copy A to B* or *Copy B to A*, respectively.