



Operation Manual

www.PSPaudioware.com

Credits

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Acknowledgements

Special thanks to Olli Niemitalo for his low latency 90 degrees phase shifting algorithm.

Thanks to all our customers around the world for your ideas and help in the development of new plug-ins!

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PSPaudioware.com s.c.

Bugaj 12,
05-806 Komorów,
Poland.

PSP HertzRider

PSP HertzRider is a frequency shifter plug-in. The Psp HertzRider is designed to be as simple as possible, to take as few resources as possible, and to incur only a very slight (and frequency dependent) latency.

So, what is a frequency shifter? Unlike a traditional pitch shifter which transposes the entire harmonic (or inharmonic) content of the signal by a given interval, a frequency shifter shifts any content by a given frequency. As an example: in a pitch shifter, shifting A 440Hz higher by one octave up would be 880Hz, its f2 at 880Hz would go up to 1760Hz, f3 at 1320Hz would go up to 2640 and so on. However, in the case of a frequency shifter, the A 440Hz may be shifted by +440Hz which results as 880Hz but when it comes to harmonics the f2 at 880Hz is shifted to 1320Hz (which is not an octave up of the fundamental any more) and f3 at 1320Hz is shifted to 1760Hz.



As you can see, a frequency shifter is a sort of weird tool. It can be an incredible tool for tuning inharmonic sounds like snares, and for harmonic sounds it becomes a creative and crazy destructive tool.

In addition to a wide range of shifting settings the algorithm contains an LFO (low frequency oscillator) to provide interesting modulation options allowing you to further creatively experiment with this tool.

Controls



PSP HertzRider – Click on the plug-in's name to reveal the about box. Click within the about box area to get back to the plug-in view.

Source Switch – Selects the input routing when the input signal is stereo. L selects the left input channel to be used for left and right shifting engine. R selects the right input channel to be used for the left and right shifting engine. The Stereo (middle) setting selects to be left input routed to the left engine and right input to be routed to the right engine.

Left and right numerical displays – Displays the positive or negative value of the frequency shift for a given engine.

Left and right Shift knobs – Controls the amount of frequency shift for each of engines. The set value is shown on the displays above the knobs. These knobs have a nonlinear response to help you dial in slight values around zero precisely.

Frequency shifting display – Shows the amount of shift up or down of both left and right shifting engines combined with the influence of the LFO.

Phase Reset button – Resets the frequency shifts of each channel and shifting phases. After this operation both channels are equally unshifted and remain so if the LFO is turned on; otherwise they detune immediately.

Range switch – Sets the range of knobs and the shift display. Available settings are 1kHz, 3kHz and 10kHz. The first one is the best choice for subtle effects while the last one is best for extreme effects.

Link switch – Selects whether the Shift knobs are unlinked (Off), linked and turning the same direction (+) or linked and turning the opposite direction (-).



LFO Type rotary switch – Selects the LFO mode, beginning with Off and followed by Sinus, Triangle, Wobble, Square, Saw Up, Saw Down. Wobble is a sort of smooth random response.

Rate knob – Controls the rate of the LFO signal in the range of 0.1 to 10Hz.

Depth knob – Sets the amount of LFO added to each of the values set with Shift knobs.

Spread knob – Controls the LFO phase spread to set up a shifting variation between both engines.

Spread LEDs – Indicates the LFO phase for each of engines.

Dry Defeat button – Disengages the dry (input) signal and the Mix knob resulting in only the wet signal on the output of the plug-in.

Bypass button – Engages the processing bypass button. The signal out of the plug-in is identical to the input signal when engaged.

Mix knob – Controls the amount of mix between the dry (input) and wet (processed) signals.

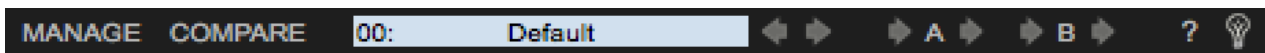
Output knob – Controls the output gain of the plug-in.

Preset Handling

PSP HertzRider is provided with factory sets of presets.

The main aim of these included presets is to show you the features of the plug-in and help you to learn to use its controls. In addition, these presets can be used as a starting point for further adjustments, or for quick fixes.

The PSP HertzRider presets can be accessed from the PSPaudioware standard PRESET bar at the bottom of the plug-in interface. Here you can select from among the factory presets, and load and save individual, as well as banks of presets.



MANAGE

Click to open menu with basic preset actions:

- *Save Preset* – stores currently chosen preset as a standard *.psp file
- *Load Preset* - loads preset from *.psp file into currently chosen preset slot
- *Reset All To Factory* – resets all presets to their initial factory state
- *Save Bank* – stores all presets as a single *.psb bank file
- *Load Bank* – loads *.psb bank file into all available preset slots

COMPARE

Click to switch between the current parameter setup and the initial preset setting.

PRESET NAME

Click the preset name button to see the popup menu of all the presets in the currently loaded preset bank. You can select a preset name to choose that preset from the list.

You can right-click the name of the preset to rename it.

PRESET SELECTION

Click on the left arrow when illuminated to switch to a previous preset on the list. Click on the right arrow when illuminated to switch to a next preset on the list.

MEMO A and B

Both A and B are permanently stored on your disk. This allows you to compare alternative settings or share a preset between various instances of the plug-in in the same project or even between various projects.

Click the left (red) arrow icon to save a preset to memo A or B.

Click the right (green) arrow icon to load a preset from memo A or B.

?

Click on the question mark whenever you need to open the operation manual.

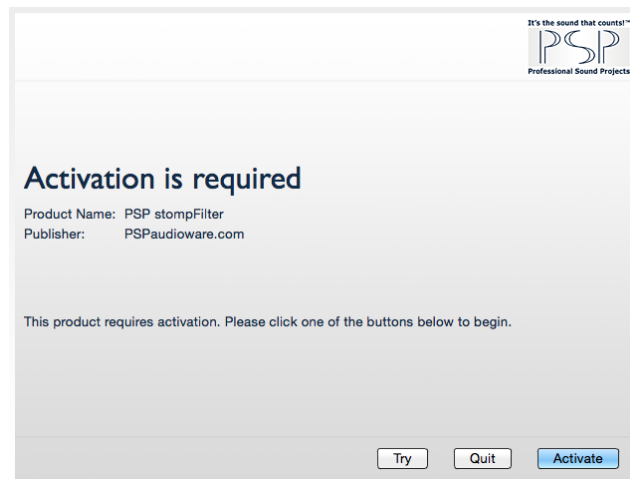
BULB

Click on the bulb icon to turn off/on hints' appearance.

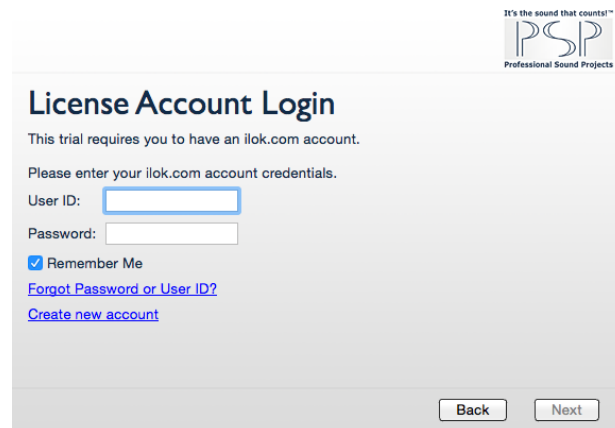
Trial Activation Instructions

In order to run a plug-in in 30 day demo mode, you need an **iLok user ID** which you can create free at <https://www.ilok.com/>, and you need to install the free **iLok License Manager** application. A hardware USB iLok dongle is **NOT** required, however it is optional.

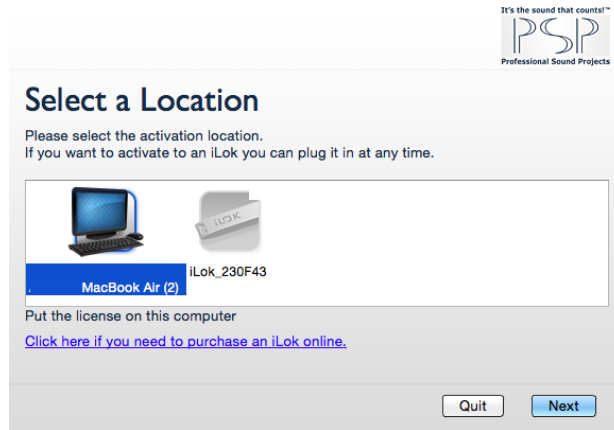
1. Run the installer on your computer and follow the steps to complete the installation.
2. Launch your host application (Pro Tools, Logic, Cubase, Sonar, Live etc.), which will scan your plug-ins and prompt you with an activation window.



3. To run a plug-in demo click "Try" in the PSP activation window and then enter your iLok account details.



4. Select the activation location. You can activate the license in three separate locations, each of which can be either a computer or an iLok dongle (2nd generation or above). You can move these licenses at any time using PACE's iLok License Manager software.

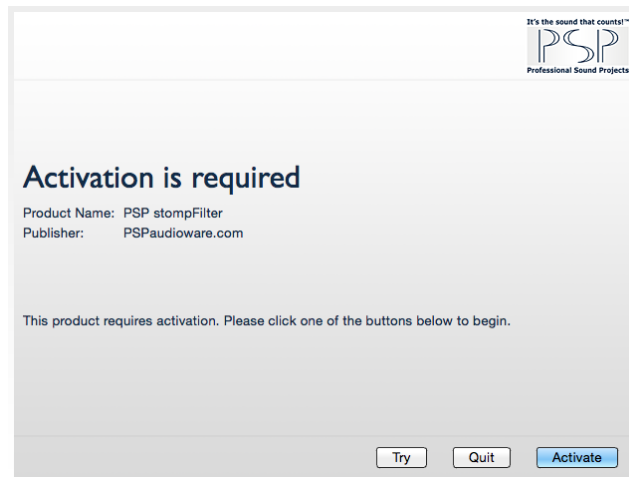


5. Enjoy using our plug-in for next 30 days without any limitation!

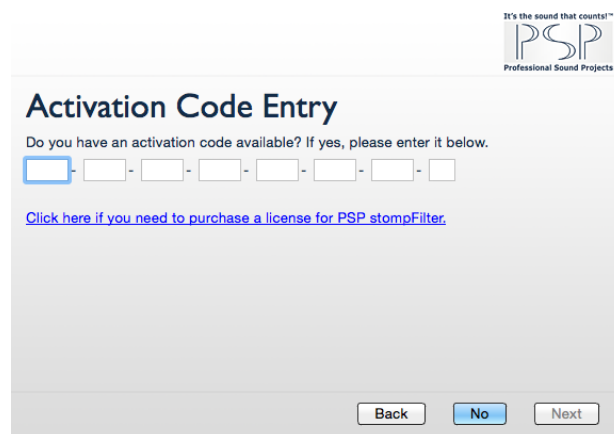
Full Version Activation Instructions

In order to activate the plug-in, you need an **iLok user ID** which you can create for free at <https://www.ilok.com/>, and you need to install the free **iLok License Manager** application. A hardware USB iLok dongle is **NOT** required, however it is optional.

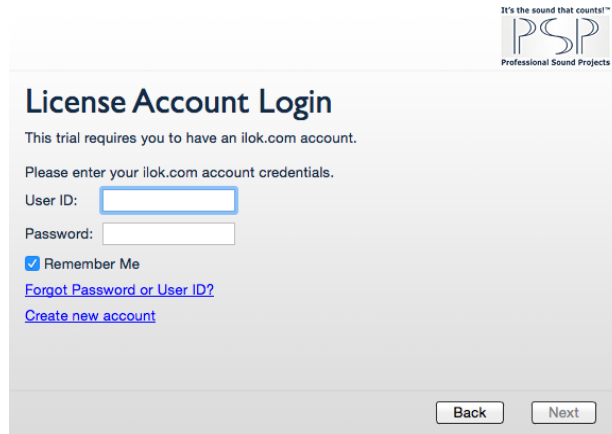
1. Download the PSP installer from your PSP user area account.
2. Run the installer on your computer and follow the steps to complete the installation.
3. Launch your host application (Pro Tools, Logic, Cubase, Sonar, Live etc.), which will scan your plug-ins and prompt you with an activation window.



4. Click the **Activate** button and enter your activation code, which is listed in the product table for your account in our user area (in the column authorization details). Click next.

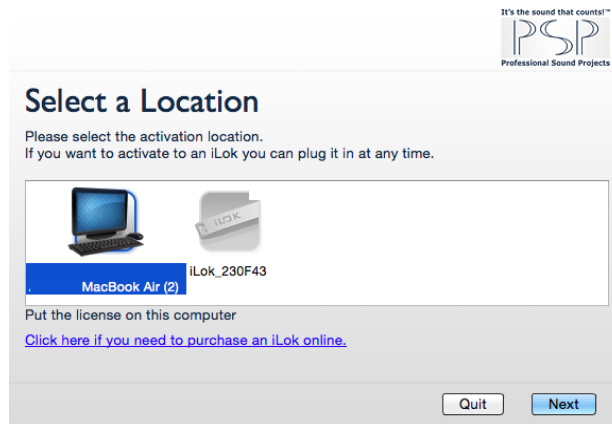


5. Type in your iLok account user ID and password. Click next.



The screenshot shows the 'License Account Login' window. At the top right is the PSP logo with the tagline 'It's the sound that counts!' and 'Professional Sound Projects'. The main heading is 'License Account Login'. Below it, a message states: 'This trial requires you to have an ilok.com account. Please enter your ilok.com account credentials.' There are two input fields: 'User ID:' and 'Password:'. A 'Remember Me' checkbox is checked. Below the fields are three links: 'Forgot Password or User ID?' and 'Create new account'. At the bottom right are 'Back' and 'Next' buttons.

6. Select the activation location. You can activate the license in three separate locations, each of which can be either a computer or an iLok dongle (2nd generation or above). You can move these licenses at any time using PACE's iLok License Manager software.



The screenshot shows the 'Select a Location' window. At the top right is the PSP logo with the tagline 'It's the sound that counts!' and 'Professional Sound Projects'. The main heading is 'Select a Location'. Below it, a message states: 'Please select the activation location. If you want to activate to an iLok you can plug it in at any time.' There are two icons: a computer monitor and an iLok dongle. Below the icons is a list of locations: 'MacBook Air (2)' and 'iLok_230F43'. The 'MacBook Air (2)' option is selected. Below the list is the text 'Put the license on this computer' and a link: 'Click here if you need to purchase an iLok online.' At the bottom right are 'Quit' and 'Next' buttons.

7. Activation is complete. Enjoy using our plug-ins! We hope you find them useful in your productions.

Specifications

- Double precision floating point computations.
- Supports project sample rates up to 384 kHz.
- Uses an internal sample rate of 44.1 kHz for source material with sample rates of 44.1, 88.2, 176.4 or 352.8 kHz.
- Uses an internal sample rate of 48 kHz for source material with sample rates of 48, 96, 192 or 384 kHz.
- 0, -3 dB bandwidth for internal 44.1 kHz sample rate ranges from 25 Hz to 15 kHz
- 0, -3 dB bandwidth for internal 48 kHz sample rate ranges from 30 Hz to 16 kHz

Minimum System Requirements

PC

VST3

- Windows x32 or x64 (7, 8 or 10)
- VST3 compatible application

VST

- Windows x32 or x64 (Vista, 7, 8 or 10)
- VST 2.4 compatible application

RTAS

- Windows x32 or x64 (XP Service Pack 2, Vista, 7 or 10)
- ProTools 8.0.0 (or later)

AAX

- Windows x32 or x64 (XP Service Pack 2, Vista, 7 or 10)
- Pro Tools 10, 11, 12 or Pro Tools HD 10, 11, 12 or Pro Tools 2018

All DAWs

- Up to date iLok License Manager application installed

Mac

AudioUnit

- Mac OSX 10.8 - 10.12 or later
- 32 or 64-bit compatible host application

VST

- Mac OSX 10.8 - 10.12 or later
- 32 or 64-bit VST 2.4 compatible host application

VST3

- Mac OSX 10.8 - 10.12 or later
- 32 or 64-bit VST 2.4 compatible host application

RTAS

- Mac OSX 10.8, 10.9, 10.10 or 10.11
- ProTools LE 8.0.0 or ProTools TDM 8.0.0 (or later)

AAX

- Mac OSX 10.8 - 10.12 or later
- Pro Tools 11, 12 or Pro Tools HD 11, 12 or Pro Tools 2018

All DAWs

- Up to date iLok License Manager application installed



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Support

If you have any questions about any of our plug-ins, please visit our website <http://www.PSPaudioware.com> where you can find the latest product information, free software updates, online support forum and answers to the most frequently asked questions.

You can also contact us by e-mail: support@PSPaudioware.com. We will gladly answer all of your questions. As a rule we respond within 24 hours.

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