

PSP Chamber



Operation Manual

PSPaudioware.com

Acknowledgements

Algorithm development, Programming and Design: Mateusz Woźniak

Additional Programming: Piotr Dmuchowski & Adam Taborowski

Product Manager: Antoni Ożynski

Documentation: Mike Metlay, Orren Merton, Mateusz Woźniak

Alpha and Beta testers:

Stephen Stepanic

Duncan O Ceallaigh

Adrien Burgo p/k/a Ckwncce

Rick Paul

Blake Eiseman

Marlon Wolterink

Jon Timpe

Robert L. Smith

Joanna Stefańska

Robert Friese

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

By using this software you agree to the terms of any license agreement accompanying it. "PSP", the PSP logo, "PSP Chamber", and "It's the sound that counts!" are trademarks of PSPaudioware.com s.c. All other trademarks are the property of their respective owners.

© 2024 PSPaudioware.com s.c.

Table of Contents

ACKNOWLEDGEMENTS.....	2
TABLE OF CONTENTS.....	3
END USER LICENSE AGREEMENT.....	4
PSP CHAMBER.....	5
OVERVIEW OF PSP CHAMBER ALGORITHM.....	6
CONTROLS.....	7
BASIC OPERATION.....	7
PARAMETERS.....	8
PRESET HANDLING & VIEW OPTIONS.....	12
PRESET BROWSER.....	13
COPY/PASTE.....	14
A/B SYSTEM.....	14
UNDO / REDO.....	14
100% GUI RESIZING.....	14
CONFIG MENU.....	15
MINIMUM SYSTEM REQUIREMENTS.....	16
PROCESSING.....	17
SUPPORT.....	18

End User License Agreement

PREFACE: This End-User License Agreement (“EULA”) is a legal agreement between you and PSPaudioware.com s.c. (PSP) for the PSP product accompanying this EULA, which includes computer software and may include associated media, printed materials, and “online” or electronic documentation (“SOFTWARE”). By installing, copying, or using the SOFTWARE, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, you may not use the SOFTWARE. The SOFTWARE is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE is licensed, not sold.

LICENSE: You can INSTALL and USE the current version of the SOFTWARE, or in its place any prior version, on three computers simultaneously so long as you are the direct user or a studio client of those machines. If more users USE the software you must buy an additional license for each workstation. The DEMO VERSION of the SOFTWARE is NOT LICENSED FOR COMMERCIAL USE.

RESTRICTIONS: You may not transfer, modify, rent, lease, loan, resell, distribute, network, electronically transmit or merge the SOFTWARE. You may not reverse engineer, decompile or disassemble the SOFTWARE, or otherwise attempt to discover the SOFTWARE source code. You are not permitted to copy the SOFTWARE or any of the accompanying documentation.

COPYRIGHTS: All title and copyrights in and to the SOFTWARE (including but not limited to any images, photographs, animations, video, audio, music, text, and “applets” incorporated into the SOFTWARE), the accompanying printed materials, and any copies of the SOFTWARE are owned by PSP. The SOFTWARE is protected by copyright laws and international treaty provisions. Unauthorized reproduction or distribution of the SOFTWARE or documentation is subject to civil and criminal penalties.

DISCLAIMER OF WARRANTY: The SOFTWARE is provided “AS IS” and without warranty of any kind. The entire risk arising out of the use or performance of the SOFTWARE and documentation remains with user. To the maximum extent permitted by applicable law, PSP further disclaims all warranties, either express or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with regard to the SOFTWARE, and any accompanying hardware. To the maximum extent permitted by applicable law, in no event shall PSP be liable for any consequential, incidental, direct, indirect, special, punitive, or other damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of this EULA or the use of or inability to use the SOFTWARE, even if PSP has been advised of the possibility of such damages.

MISCELLANEOUS: This EULA is governed by Polish law. Should you have any questions concerning this EULA, or if you wish to contact PSP for any reason, please write to:

PSPaudioware.com s.c.
Bugaj 12;
05-806 Komorów,
Poland.

PSP Chamber

Thank you for your purchase of PSP Chamber, a versatile mix reverberator. In developing this plug-in, we tried to make it simple to use, while offering enough control over its algorithm for you to customize the effect to your specific needs. In other words, we wanted to offer you a reverb that is operationally “easy,” but sonically complex!

PSP Chamber consists of a single *chamber* algorithm existing in three variations and sizes.

The *chamber* algorithm has adjustable parameters for Decay (reverb time), Damp (high frequency damping to simulate darker rooms) and Predelay. The reverb's frequency spectrum can be then shaped with a 3-band semi-parametric equalizer.

We recommend that you spend some time with the manual to get a sense of what PSP Chamber can do, then start by pulling up the various presets in order to hear the algorithms and their variations. We hope you find this plug-in as useful for adding the depth and the space to audio material as we do. Please don't hesitate to let us know your thoughts about the PSP Chamber.

We would also encourage you to check out PSP Chamber's “older brother” - PSP EasyVerb, the algorithmic reverberator featuring a range of ten algorithms including ambience, room, chamber, plate and others.

Overview of PSP Chamber algorithm

PSP Chamber adds depth and space to audio material by generating reverberations similar to those created by classic reverberation hardware, which in turn are meant to simulate physical spaces of various sizes and shapes. The *chamber* algorithm is specially designed to ensure rapidly developing and dense reverberation with smooth decay. You can use the various controls to do some overall shaping and fine-tuning of the effect, but it will be the chosen algorithm that provides the primary impact.

Chamber algorithm simulates the dense reverberations found at the back of a sonically rich space. The Chamber's shape is irregular, as you would encounter in a small concert hall or studio echo chamber. The source material is positioned in the front of the chamber. This algorithm is capable of being tuned to mimic various kinds of acoustic spaces or even the distinctive sound of steel plate reverb.

Tweaking the parameters of the algorithm and adjust its overall flavor with the built in equalizer makes this plug-in a versatile acoustic tool for your individual tracks.

Controls

PSP Chamber's front panel contains all of the plug-in's controls, with no hidden tabs or menus. Knobs can operate in circular or linear mode according to the host's settings. They operate in linear mode by default. Most of the control settings will be stored whenever you save a preset. The exceptions are Mix, Output and, Proc. These are adjusted globally for all programs, so you don't have to constantly change the output level or reverb level every time you switch between presets.

Basic Operation

To activate or deactivate the processing, simply click on the foot switch button. To change the algorithm, its size or a variation use buttons beneath the display or click directly on labels on it. To adjust the knobs, click on the knob and move your mouse up or down. The numeric display of the current value below the knob you are adjusting will change to reflect your mouse position.

If you press the Shift key before you click on a knob, for as long as you hold the Shift key down the knob will be in Fine Movement Mode, which allows you to make more precise parameter adjustments. Clicking on a knob with the Alt key pressed (Option on a Mac), or double-clicking it, will reset the knob to its default position.

The knob value display below each knob can be clicked to reveal a text box. You can directly type a desired numerical value into this box. Clicking on the name of the currently chosen reverb algorithm underneath the graphic representation opens a popup menu listing the available reverb algorithms to choose from.

Finally, you can click on the PSP Chamber title at the top of the plug-in panel to switch the display to an information panel with details about the plug-in authors, the installed version number, and to whom the plug-in is licensed. Simply click on the information panel to return to the standard editing display.

Parameters



Decay

This sets the reverberation decay time. It lets set the decay time from very short, instantly decaying reverberations to near-frozen ones. When the algorithm you are using is simulating a physical space, the longer the decay time, the larger the space will seem. In the case of the Ambience and Reverse algorithms, this control sets the shape of a decay curve while the time is constant and set to around 1 second.

Typically a Decay setting between 30% and 70% will offer the most natural sound, and in the case of the Plate and Spring algorithms, the most accurate simulation of those devices.

Algorithm

The algorithm display shows and controls the size and variation of the Chamber algorithm.

Size

Selects the size of a virtual “space”. Click on the name or use the left set of Up/Down scroll buttons to select a Size.

Variation

Selects the algorithm’s room tuning. The default Legacy Variation reproduces the fixed settings for these parameters that were built into the original PSP EasyVerb version 1. Alt 1 and Alt 2 are new variations with different tonalities. Click on the name or use the right set of Up/Down scroll buttons to select a Variation.

Damp

Sets the damping factor for high frequencies. It ranges from 0 % for bright reverberation to 100 % for very dark reverberation.

Use this control to set the high frequency damping – in other words, how much high frequency information gets removed from the reverb tail – over time. This helps to simulate the high frequency damping caused by absorption from the materials in the room such as carpets (or people in seats!), or you can use it to simply tune the brightness to your taste.

Predly

The Predly slider adds predelay – the time between the dry signal and the first sound of the reverberation. Longer Predelay settings simulate larger rooms, where the source sound must reach the walls before its reflections can bounce back to the listener.

EQ Section

PSP Chamber offers you a 3-band EQ section that includes, from left to right, a low shelving EQ, middle peaking EQ, and a high shelving EQ. Each band has two control knobs:

Freq:

This knob sets the frequency beyond which the shelving bands will cut or boost the signal, or the precise frequency at the center of the peaking band’s cut or boost.

The low shelf has a range of 25 Hz to 10 kHz;

The middle peaking band has a range of 80 Hz to 8 kHz;

The high shelf has a range of 50 Hz to 20 kHz.

Gain:

This knob determines how drastic an effect the EQ will have on the sound:

For the two shelving bands, the Gain knob can boost the frequency by up to +6 dB, creating a 6 dB shelf at and above or below the selected frequency, all the way down to a cut of $-\infty$ that effectively turns the bands into lowpass or highpass filters. To avoid having this extreme setting sound too drastic, and in order to produce a more natural sound, the

shelving bands use first-order filters with a gentle slope of 6 dB of boost or cut per octave.

The middle peaking band has a Gain range of ± 18 dB. The middle peaking Gain includes overall level compensation to avoid drastic changes in level. For example, a boost of +12dB will be compensated by an overall (full band) signal attenuation of 6 dB, while a cut of -12 dB will be compensated by a 6 dB overall boost.

Proc

This button turns the plug-in's processing on or off. When turned off, no input signal is passed to the reverberation algorithm, but the reverb still works, so the reverb tail will not be cut off abruptly as soon as you press the button.

Note that turning Proc off will *not* reduce CPU usage, because the plug-in is still running. Use your plug-in's host application or DAW to totally disable the plug-in. Also note that the dry/wet Mix is retained when Proc is off.

Width

The Width control sets the stereo width of the reverb. Narrowing the Width gives you the soundstaging typical of some vintage reverbs – including mono Plate or Spring reverbs, or an echo Chamber – or simply to help you maintain clarity in the mix.

Mix

The Mix control sets the ratio of dry (original signal) to wet (reverb only). This control is intentionally not stored within presets, but its settings will be stored within a project in your DAW or other host application.

A Mix of 0% produces only a dry signal at the output, while 100% passes in only the wet reverberation signal at the output, as you would want if PSP Chamber is used on an auxiliary send. The Mix ratio on the output of the plug-in is retained even if the Proc button is in its off position, so a dry signal level set by the Mix knob is also suitable to act as a signal level control when in Bypass mode.

Out

The Out knob sets the overall output level, and has a range from $-\infty$ (muted) to +12 dB. It is set to 0 dB by default.

Output level indicator

This 3-LED meter shows the presence and approximate level of the output signal.

PSP Chamber / About box

Clicking on the plug-in's name shows its About box. To go back from an About box view to the usual parameter editing view, just click anywhere in the plug-in window.



Preset Handling & View Options

We have provided PSP Chamber with a selection of factory presets. These presets can be used as a starting point for further adjustments, or for quick “drop-ins” on certain tracks.

You access the PSP Chamber presets from the PSPaudioware standard PRESET BAR at the top of the plug-in interface.



Preset Browser

PSP Chamber features a comprehensive new preset management and browser system. To access the preset browser, you click the preset name window at the top of the plug-in (which displays 'Default' when the plug-in loads).



The new preset management bar has three main categories which can be accessed with the tabs at the top of the preset browser: **Application**, **Designer**, and **My presets**.

Application - shows all factory built-in presets grouping by application.

< **Factory presets are built into the plug-in and cannot be directly edited!**
You can adjust them and save separately as user presets >

Designer - shows all factory built-in presets grouped by designer.

My presets - shows only user presets.

This view shows all of the presets you have created and saved, or downloaded and added to your custom presets for PSP Chamber.

To add categories to the preset list, you can create new subfolders in the preset directory.

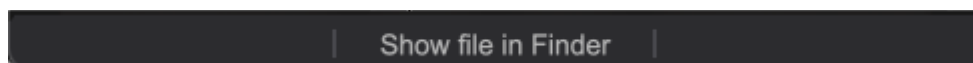
For Windows users, this is located at:

C:\Users\Username\Documents\PSPaudioware.com\User Presets\PSP Chamber

For Mac users, this is located at:

~/Documents/PSPaudioware.com/User Presets/PSP Chamber

< **You can always check the exact path by clicking on the "Show file in Finder" tab at the bottom of the preset browser window.** >



To select a preset, click a preset name in the right window. When clicked, the preset will be applied so that you can audition it. To confirm the preset choice, you can click the preset name once more to load it.

Each preset has own picture. You can click on it to open the designer's website.

Copy/Paste

A dark rectangular button with the text 'Copy' and 'Paste' in white, separated by a small gap.

The **Copy/Paste** feature allows you to quickly transfer settings between instances of the plug-in.

To use this feature, you can click '**Copy**' at the top of the plugin below the preset browser window. Then, open a new instance of the plug-in on another track (or on the same track) and click '**Paste**' to paste the settings to the new instance of the plug-in.

This feature can be particularly useful for processing similar instruments or sounds, when only a few minor tweaks to the starting settings are needed for each specific track.

A/B System

A dark rectangular button with the text 'A / B' and 'A → B' in white, separated by a small gap.

The **A/B system** is for quickly checking and auditioning changes to the plug-in settings.

The **A/B Button** at the top of the interface below the preset browser window allows you to A/B between the current and previous setting of the plug-in. This can be used to audition changes made to your mix, or to audition between two presets.

The **A>B Button** quickly copies the settings of the **A** setting to the **B** setting. This allows you to save your place and apply further tweaks and the audition them with the **A/B Button**.

Undo / Redo

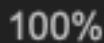


The **Undo/Redo** feature of the plugin lets you quickly navigate between setting changes.

To use this feature, use the undo/redo buttons (CCW and CW arrows, respectively) located below the preset browser window.

These buttons will undo changes to the current plug-in settings, or allow you to undo a preset change, depending on the last action in the plug-in.

100% GUI resizing

A dark rectangular button with the text '100%' in white.

PSP Chamber's window size is easily changed to suit your needs. To change the GUI zoom factor, simply hover your mouse over the zoom percentage number and scroll up or down with your mouse wheel or a two-finger touch on your touchpad. Double-click the size number to reset the window to the default size of 100%.

You can also resize the plug-in interface simply by dragging the right bottom corner of the plug-in to any size you like. For quick and precise size setting, single-click on the size number to pop up a set of frequently-used size preset values.

CONFIG Menu



When clicking the three parallel lines icon in the top right corner will open the **CONFIG** menu. Here, you can open the manual, check the current plug-in version number, and choose to hide or show mouse-over hints. Click anywhere in the window to exit.



Minimum System Requirements

Windows

VST

- Windows 7 – Windows 11
- 64-bit VST3 compatible application

VST3

- Windows 7 – Windows 11
- 64-bit VST3 compatible application

AAX

- Windows 7 – Windows 11
- 64-bit Pro Tools

macOS Intel or macOS AppleSilicon

AudioUnit

- macOS 10.14 – macOS 14 Sonoma
- 64-bit AudioUnit compatible host application

VST

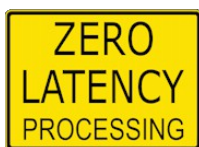
- macOS 10.14 – macOS 14 Sonoma
- 64-bit VST3 compatible application

VST3

- macOS 10.14 – macOS 14 Sonoma
- 64-bit VST3 compatible host application

AAX

- macOS 10.14 – macOS 14 Sonoma
- 64-bit Pro Tools



VST, VST3 are trademarks and software of Steinberg Media Technologies GmbH. AAX, Pro Tools, and RTAS are trademarks or registered trademarks of Avid Technology, Inc. AudioUnit, OSX, macOS, Apple Silicon are trademarks of Apple Inc.

Processing

- All internal processing is performed with 64-bit double precision floats.
- 32 and 64-bit floating point audio streams are fully supported.
- Sample rates up to 800 kHz are fully supported.

Support

If you have any questions about any of our plug-ins, please visit our website:

www.PSPaudioware.com

That's where you can find the latest product information, free software updates, online support forum, and answers to the most frequently asked questions about our products.

Problems with the installation, activation, or authorization?

Please check our [troubleshooting video tutorials](#) on our YouTube channel.

You can also contact us via email: support@PSPaudioware.com.

We will gladly answer all of your questions. As a rule we respond within 24 hours.

PSPaudioware.com s.c.
Bugaj 12
05-806 Komorów
Poland.
ph. +48 601 96 31 73
www.PSPaudioware.com
contact@PSPaudioware.com

PSPaudioware.com s.c.
Bugaj 12
05-806 Komorów