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PSP 2445 Reverb Processor Plug-In User Manual

Contents

PSP 2445 Reverb Processor Plug-In

Acknowledgment

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Special thanks to

Barry Blesser – the creator of EMT 250, EMT 244, and EMT 245 reverberation algorithms for his extensive support Thanks to all our customers around the world for ideas and help in the 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 2445, and "It's the sound that counts!" are trademarks of
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PSP 2445

PSP 2445 is a reverb processor inspired by algorithms from two legendary early digital age reverberators: the EMT 244 and the EMT 245. PSP thoroughly researched how to bring the specinc features of those simple, yet very musical-sounding reverbs to life as a plug-in. We then improved from the originals with a handy set of parameters to control details of the sOund and mix the reverb not available in the original hardware. The PSP 2445 is capable of processing using one selected engine or both of them simultaneously.


Controls

Power switch- click on the I/O switch or the power indicator to engage or disengage the SIgnal feed to the processing algorithms. when set to "O the PSP 2445 is not bypassed and the output signal depends on Mix and Output Gain settings. Use your host application's plug-in bypass control to fully bypass the 2445 reverb. **Engine switch** – click and drag the rotary switch to the left, middle or right or click on one of the labels to select the engine mode

- 244- only the 244 reverberation engine will be mixed to the output,
- +-both 244 and 245 reverberation engines will be mixed to the output simultaneously,
- 245-only the 245 reverberation engine will be mixed to the output.
- Input Level meter – indicates the signal level reaching the inputs of the reverberation algorithms. Any value above OdB will be clipped on the input.
- Input Level knob – sets the input level fed to reverberation algorithms.
- Delay- sets the predelay time added before the reverberation occurs.
- Reflections – sets the number of early reflections mixed before the reverb tail.
- Time knob-sets the reverberation time.
- PSP 2445 label – click on the label to open the about box of the plug-in. The about box contains information about plug-in and authorization details. Click wherever on the about box area to switch back to the normal plug-in view.

- Low-Frequency Time switch – click on the switch or on LEDs above it to switch between normal and extended reverberation time for low frequency range.
- High-Frequency Time switch – click on the switch or on the LEDs above it to switch between normal and dampened reverberation for the high frequency range.
- Output Mix knob – sets the amount of dry to reverberated signal ratio.
- Output Gain knob – sets the level of the mixed output signal.
- Flap-click on the OPEN label opens the hidden parameters flap.
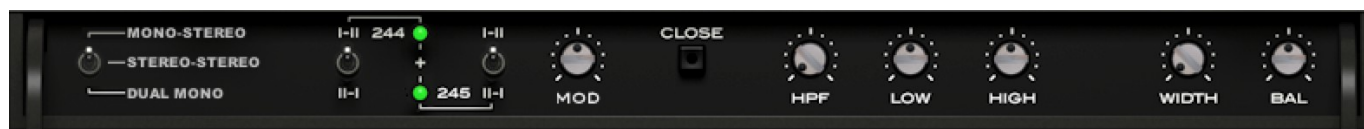
Route selects plug-in's input and output routing.

1. The Original EMT 244 and EMT 245 operated using a mono-to-stereo configuration. Since we have both engines running simultaneously we can provide more stereo configurations with a wet signal.
2. With the Route switch, you can select between three signal configurations: 1. Standard Mono-Stereo configuration. In this configuration, any single-engine (244 or 245), or both running in parallel (244 + 245), can provide a stereo output followed by Width, Balance, Mix, and Output. 2. Stereo-Stereo mode varies the sound depending on which input channel the signal s coming from. In this mode, the stereo reverb differs from standard Mono-Stereo even if the input is fed with a mono signal because of the additional processing used to create a True Stereo-to-Stereo operation. Using a single 244 or 245 engine results in a highly shifted stereo field, thus 244 +245 mode is recommended. For best results set 244 to ll-l and set 245 to -ll configuration. . Dual Mono mode allows you to run the 244 engine on the left channel and the 245 on the right channel without any cross-feeding. For dense reverb set 244 and 245 engines tol-l. For sparse reverb tail select |1-l mode for both engines. In all modes Width and Balance work the same as in Mono-Stereo mode.
3. 245 out 1-ll/l-l switch selects how the 245 engine routes the signal to the plug-ins Left and Right output channels. I-l is a default routing. ll-l swaps the output channels' routing. MOD multiplier sets the reverberator's modulation depth. The default value is at the 12 o'clock position. Turning the trim pot clockwise leads to a strongly modulated and muddied effect. Turning the trim pot counter-clockwise reduces the modulation which results in reduced tail smoothness and a more resonant character to the reverberation tail.
4. Most algorithmic reverberators have some inherent modulation-sometimes noticeable, sometimes not. This is because the complexity of algorithmic reverbs is considerably simplified from an actual studio or hall environment. This is reflected in the number of resonances, or the pattern and mechanical character, of reverb tail reflections. To deal with these limitations, modulation is added to spread resonances and smooth out a tail pattern. Sometimes you may want this modulation to obvious on tracks, other times you may not, so we provide a parameter that will lessen or exaggerate the modulation in PSP 2445. The lower the modulation the more synthetic, resonant, and grainy the reverb is-however chorusing is less noticeable. The higher the modulation level is set the less periodic the reverb tail is and is more blurred at the expanse of exaggerated chorusing effects. Try lowering the MOD multiplier counterclockwise from the 12:00 hardware default setting if a track naturally exaggerates the reverb's internal modulation. Set the MOD to a high value by turning it clockwise if you want to get a blurred tail with a highly noticeable warbling.

- Close button- click to close the hidden parameters' flap.

- HPF- sets the reverberation high pass filter to reduce the amount of low-frequency content in the reverberated signal. The high pass filter is located on the input of the reverberation input
- LOW adjusts the reverberation time for the low-frequency range.
- HIGH- adjusts the reverberation time for the high-frequency range.
- WIDTH sets the stereo width of the reverberated signal.
- BALance-sets the balance of the reverberated signal.

Preset Handling & View Options

We provide all PSP plugins with a collection of factory presets. These presets can be used as a starting point for further adjustments, or for quick fixes. You access presets from the PSPaudioware standard PRESET BAR at the top of the plug-in interface.
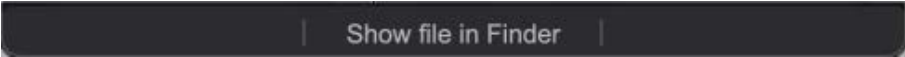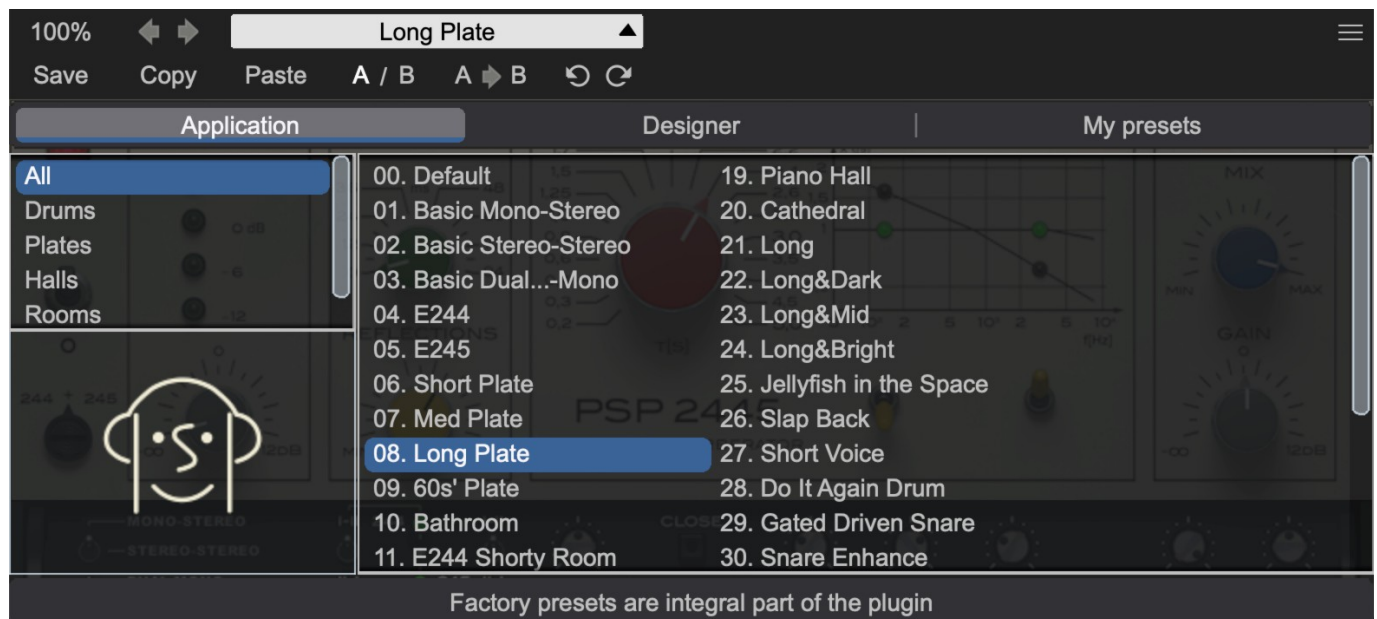

Preset Browser

The PSP 2445 EMT edition 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).
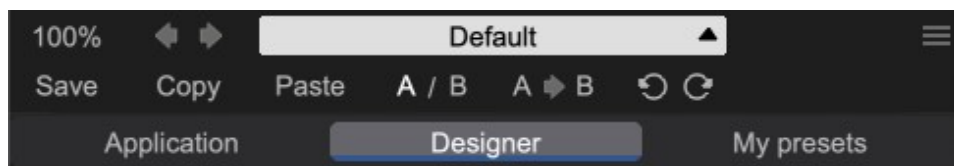
The new preset management bar has three main categories which can be accessed with the tabs at the top of the preset browser: Application, Designer, and My presets. Application – shows all factory built-in presets grouping by application. Factory presets are built into the plugin and cannot be directly 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 2445 EMT. To add categories to the preset list, you can create new subfolders in the preset directoy. For Windows users, this is located at C:UserslUsernamelDocumentslPSPaudioware.com User PresetslPSP 2445 EMT For Mac users, this is located at: Documents/PSPaudioware.com/User Presets/PSP 2445 EMT

<You can always check the exact path by clicking on the "Show file in Finder" tab at the bottom of the preset browser window. Show file in Finder 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, click on it to open the designer's website.

| Show file in Finder |

Copy/Paste

- 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 are needed.

Copy   Paste

AB System

The A/B system for quickly checking and auditioning changes to the plugin settings. The A/B Button at the top of the interface below the preset browser window allows you to AB between the current and previous settings 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 audition them with the A/B Button.

A / B   A ➡ B

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

Scroll (by the mouse wheel or use two-finger to move on the touchpad) this percentage up or down to change the GUIs zoom factor. Double click to reset its state to the default size (100%).
You can resize the plug-in interface by just dragging the right bottom corner of the plug-in to any size you like.
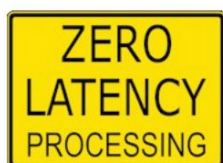
100%

CONFIG section

When clicking the three parallel lines glyph, the CONFIG menu will open and it allows you to open the manual, check the current plugin version number and turn on/off hints.
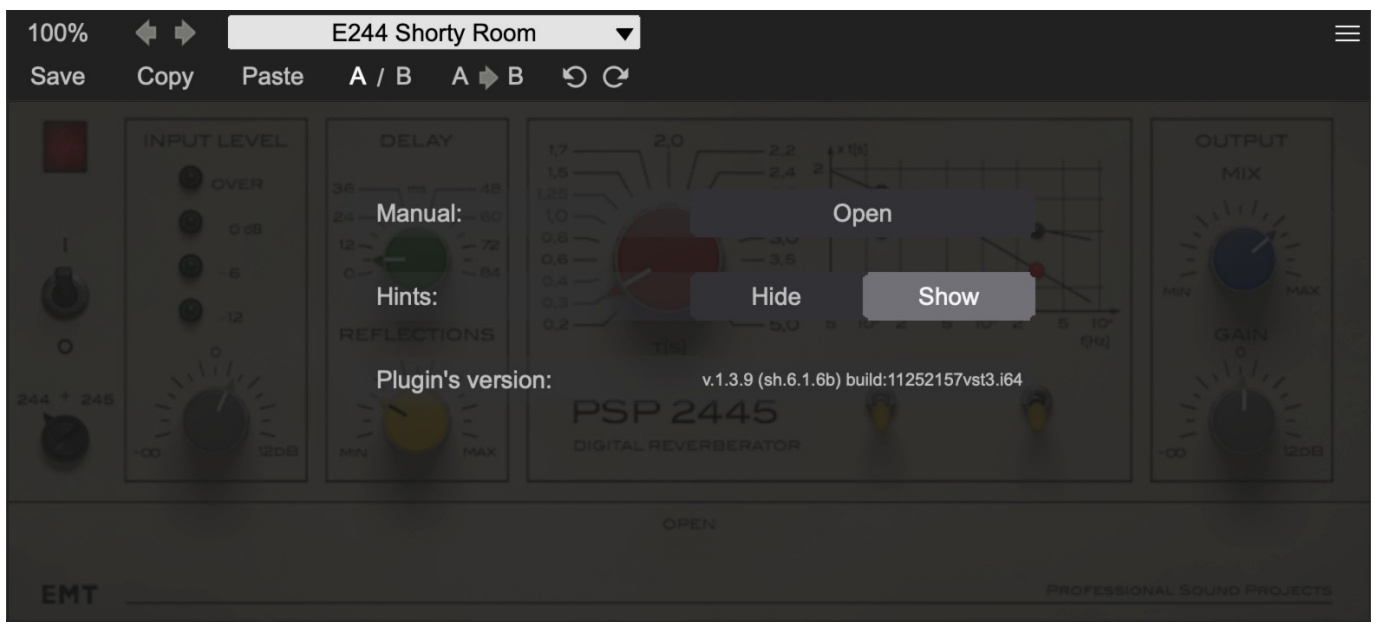
Minimum System Requirements

- PC
- VST3
- Windows 7-Windows 11
- 64-bit VST3 compatible application
- VST
- Windows 7-Windows 11
- 64-bit VsT compatible application
- AAX
- Windows 7-Windows 11
- 64-bit Pro Tools 11, 12or Pro Tools HD 11, 12 or Pro Tools Ultimate
- All DAWs
- The latest iLok License Manager application installed (an iLok dongle not required)
- Mac (macintel or arm AppleSilicon processors)
- AudioIUnit
- macOS 10.10- macOS 12.01 Montery
- 64-bit AudioUnit compatible host application

- VST
- macOs 10.10- macOs 12.01 Montery
- 64-bit VST compatible host application
- VST3
- macOS 10.10- macOS 12.01 Montery
- 64-bit VST3 compatible host application
- AAX
- macOS 10.10- macOS 12.01 Montery
- 64-bit Pro Tools 11, 12 or Pro Tools HD 11, 12 or Pro Tools Ultimate
- All DAWs
- Up to date, iLok License Manager application installed (an ilLok dongle not required)

Processing

All internal processing is done with 64 bit double-precision floats. 32 and 64 bit floating point audio streams supported Sample rates up to 192kHz supported.

Support

- If you have any questions about any of our plug-ins, please visit our website: **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.
- Problems with the installation, activation or authorization?
- Please watch our troubleshooting video tutorials on our YouTube channel.
- 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 PSPaudioware.com s.c.
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Documents / Resources

PSP 2445 Operation Manual www.PSPaudioware.com	**PSP 2445 Reverb Processor Plug-In** [pdf] User Manual 2445, Reverb Processor Plug-In, 2445 Reverb Processor Plug-In

References

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