

# PSP 2445

Endorsed by EMT®



## Operation Manual

[www.PSPaudioware.com](http://www.PSPaudioware.com)

## **Acknowledgments**

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Additional presets: Steve Levine

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

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PSPaudioware.com s.c.  
Kwadratowa 4/19,  
05-509 Jozefoslaw,  
Piaseczno,  
Poland.

## 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 specific 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 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 0dB 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 amount 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 normal plug-in’s view.

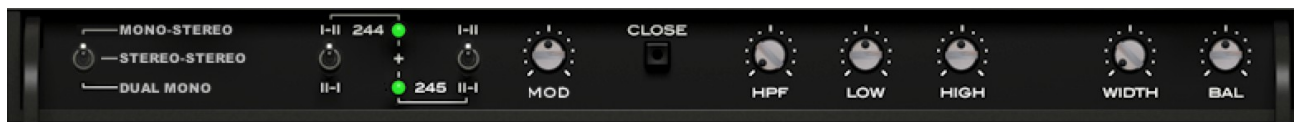
**Low Frequency Time switch** – click on the switch or on LEDs above it to switch between normal and extended reverberation time for low frequency range.

**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.

*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.*

*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 is 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 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 II-I and set 245 to I-II configuration.*
- 3. 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 to I-II. For sparse reverb tail select II-I mode for both engines.*

*In all modes Width and Balance work the same as in Mono-Stereo mode.*

**244 out I-II / II-I switch** – selects how the 244 engine routes the signal to the plug-ins' Left and Right output channels. I-II is a default routing. II-I swaps the output channels' routing.

**LEDs** – indicate and select a reverberation engine. Click on a chosen LED to select an engine or select on the plus in between to use both engines.

**245 out I-II / II-I switch** – selects how the 245 engine routes the signal to the plug-ins' Left and Right output channels. I-II is a default routing. II-I 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 trimpot clockwise leads to a strongly modulated and muddled effect. Turning the trimpot counter-clockwise reduces the modulation which results in reduced tail smoothness and a more resonant character to the reverberation tail.

*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 be 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 expense of exaggerated chorusing effects.*

*Try lowering the MOD multiplier counter clockwise 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 low frequency range.

**HIGH** – adjusts the reverberation time for high frequency range.

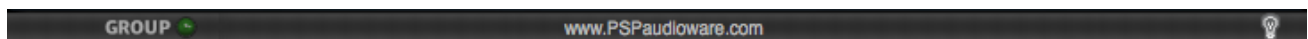
**WIDTH** – sets the stereo width of the reverberated signal.

**BALance** – sets the balance of the reverberated signal.

## The About Screen

Each PSP plug-in offers an About window. This screen contains your authorization details, as well as the version number of the plug-in. To access each plug-in's about box, click on the name of the plug-in. To return to the controls view, click the name of the plug-in again (or anywhere in the about screen).

## Hint Bar



### Hints on/off

Click on the light bulb to show or hide hints in the hint bar.

### Hint Text

A short description of the control that your mouse is hovering over.

When the mouse is off plug-in's GUI or it is disengaged there is a PSPaudioware web site link by default. Double click on the link to open our company page.

## Using presets

PSP 2445 is provided with factory sets of presets.

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

The PSP 2445 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. There are three sections to this bar, the PRESET section, the Preset window, and the BANK section.

### **BANK SECTION**

Click the green arrow icon to load a bank from a disk.

Click the red arrow icon to save a bank.

Double click the BANK label to permanently store the default preset bank.

Press Command (Mac) or Control (PC) and double click to restore the factory default bank.

### **PRESET SECTION**

Click the green arrow icon to load a preset.

Click the red arrow icon to save a preset.

Double click the PRESET label to permanently store the default preset.

Press Command (Mac) or Control (PC) and double click to restore the factory default preset.

### **PRESET EDIT BOX**

Click the menu button to the right of the preset edit box to see and the popup menu of all the presets in the currently loaded preset bank and to choose a preset from the list.

Click the name of the preset to rename it.

### **PRESET SELECTION**

Click on the bright left arrow to switch to a previous preset on the list.

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

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

?

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

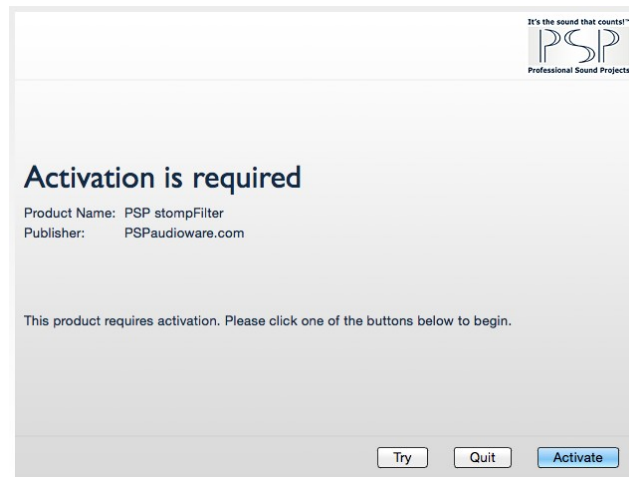


## Trial Activation Instructions

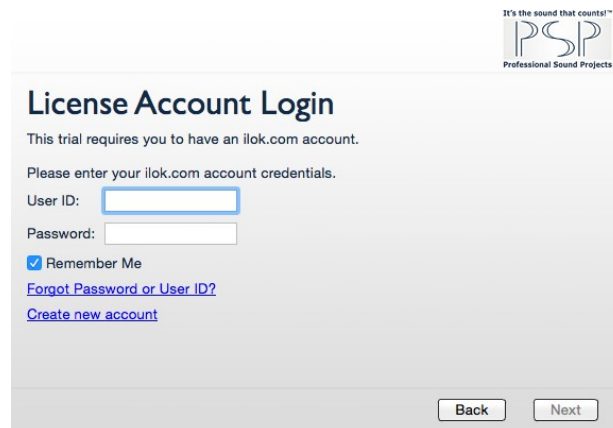
In order to run a plug-in in 30 day demo mode, you need an **iLok user ID** which you can create free at <https://www.ilok.com/>, and you need to install the free **iLok License Manager** application.

A hardware USB iLok dongle is **NOT** required, however it is optional.

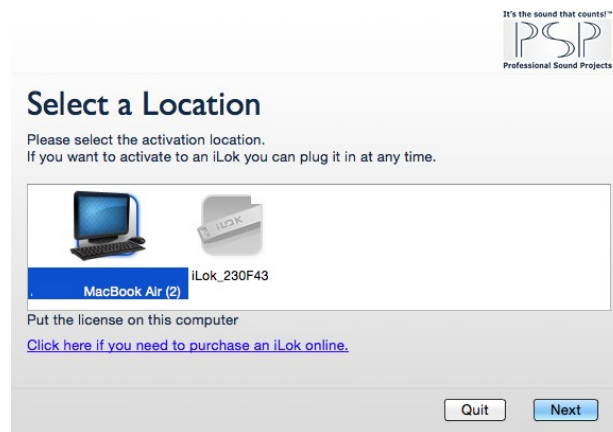
1. Run the installer on your computer and follow the steps to complete the installation.
2. Launch your host application (Pro Tools, Logic, Cubase, Sonar, Live etc.), which will scan your plug-ins and prompt you with an activation window.



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 (2<sup>nd</sup> generation or above). You can move these licenses at any time using PACE's iLok License Manager software.

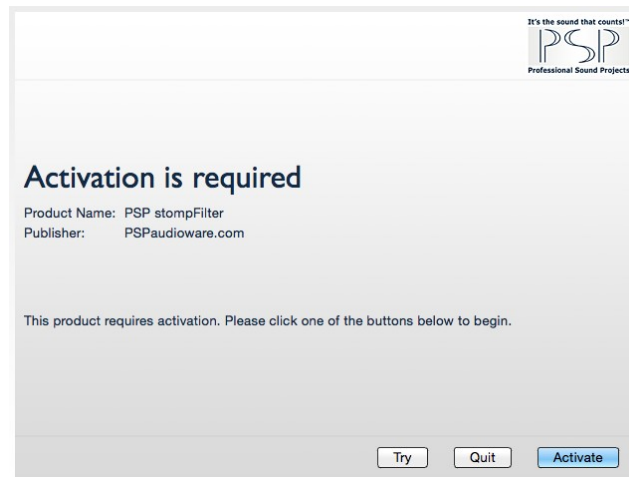


5. Enjoy using our plug-in for next 30 days without any limitation!

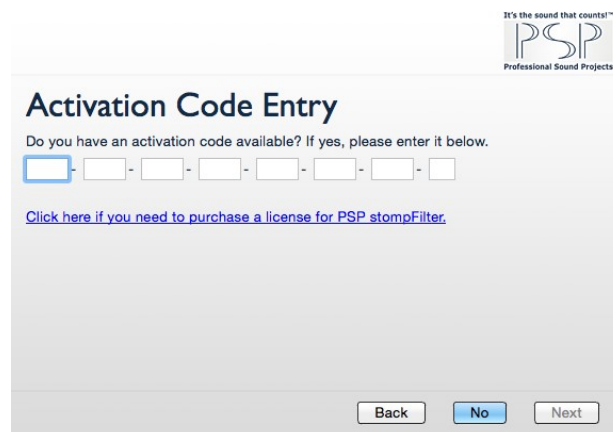
## Full Version Activation Instructions

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.

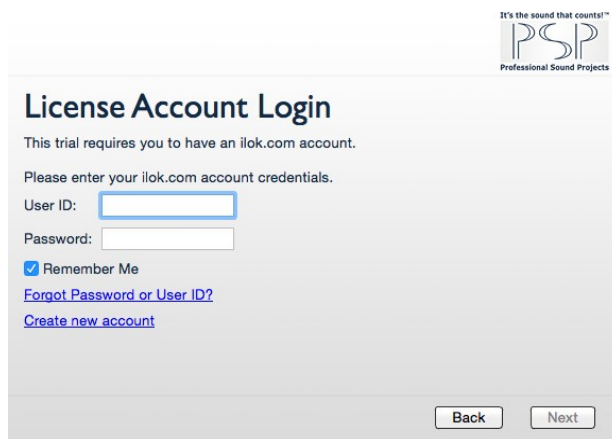
1. Download the PSP installer from your PSP user area account.
2. Run the installer on your computer and follow the steps to complete the installation.
3. Launch your host application (Pro Tools, Logic, Cubase, Sonar, Live etc.), which will scan your plug-ins and prompt you with an activation window.



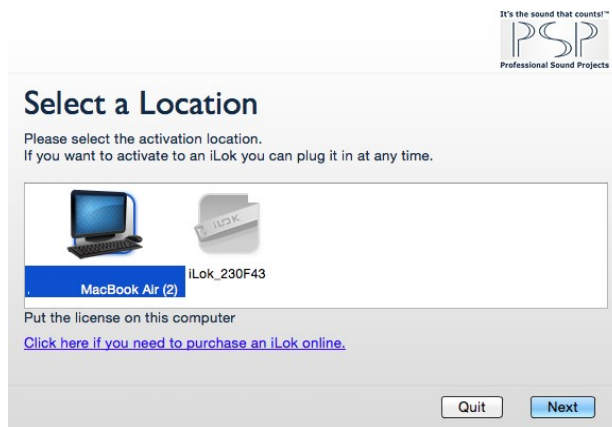
4. Click the **Activate** button and enter your activation code, which is listed in the product table for your account in our user area (in the column authorization details). Click next.



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



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 (2<sup>nd</sup> generation or above). You can move these licenses at any time using PACE's iLok License Manager software.



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

## Minimum System Requirements

### PC

#### 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

#### All DAWs

- Up to date iLok License Manager application installed

### Mac

#### AudioUnit

- Mac OSX 10.8, 10.9, 10.10 or 10.11
- 32 or 64-bit host application capable of running AudioUnit plug-ins with Cocoa view

#### VST

- Mac OSX 10.8, 10.9, 10.10 or 10.11
- 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, 10.9, 10.10 or 10.11
- Pro Tools 10, 11, 12 or Pro Tools HD 10, 11, 12

#### All DAWs

- Up to date iLok License Manager application installed

## 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](mailto:support@PSPAudioware.com). We will gladly answer all of your questions. As a rule we respond within 24 hours.

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