

PSP E27



Operation Manual

www.PSPaudioware.com

Credits

PSP E27 plug-in based on Avedis E27 by Avedis Audio Electronics

Analog Compliance Consulting: Avedis Kifedjian

Plug-in Design: Mateusz Woźniak & Adam Taborowski

Programming and Algorithms: Adam Taborowski

Algorithms' Supervision: Mateusz Woźniak

Graphics: Mateusz Woźniak, Adam Taborowski

Documentation: Adam Taborowski, Orren Merton

Product Manager: Antoni Ożyński

Additional Presets: Sakis Anastopoulos, Alécio Costa

Acknowledgements

Thanks to all our customers around the world for your 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 E27” and “It’s the sound that counts!” are trademarks of PSPaudioware.com s.c.

VST is a trademark and software of Steinberg Media Technologies GmbH. AAX, Pro Tools, and RTAS are trademarks or registered trademarks of Avid Technology, Inc. AudioUnit, OSX are trademarks of Apple Inc. All other trademarks are the property of their respective owners.

© 2024 PSPaudioware.com s.c.

Table of Contents

Credits.....	2
Acknowledgements.....	2
Table of Contents.....	3
End User License Agreement for PSP Software.....	5
PSP E27 Introduction.....	6
Avedis E27.....	7
PSP E27 specification.....	8
Bit depth.....	8
Channel setup.....	8
Sample rates.....	8
Latency.....	8
PSP E27 controls.....	9
PSP 500 launchbox.....	9
Power.....	10
BPS.....	10
MON.....	10
MS.....	10
PA11.....	10
2x.....	10
LINK.....	11
Tape label.....	11
PSP.....	11
E27.....	12
IN.....	12
LS.....	12
HS.....	12
Filter knobs.....	12
PA11.....	13
Drive.....	13
HPF.....	13
Output.....	13
28k.....	14
Polarity.....	14
TrafoX.....	14
AmpX.....	14
Tips and Tricks.....	15
Filter dependency.....	15
Linearity.....	16
Bypass.....	17
Mono-Stereo processing.....	18
PSP E27 SINGLE EDITION.....	19
Preset Handling & View Options.....	20
Preset Browser.....	20
Copy/Paste.....	22
A/B System.....	22
Undo / Redo.....	22
100% GUI resizing.....	23
CONFIG section.....	23

Minimum System Requirements.....	24
Support.....	25

End User License Agreement for PSP Software

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 may USE the current version of the SOFTWARE, or in its place any prior version for the same operating system, on no more than three computers simultaneously. You can INSTALL a copy of the SOFTWARE on as many machines as you want 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 E27 Introduction

Thank you for your purchase of the PSP E27!

The PSP E27 is a multistage equalizer plug-in inspired by the analog equalizer E27 produced by Avedis Audio Electronics. It features three-band equalization with +/-16dBs of boost/cut at musically selected frequencies having gentle saturation. Low and high frequency filters can work in bell or shelf mode with a single click. There is also an additional preamp stage for global level control, and a selectable high-pass filter. The PSP E27 plug-in captures the non-linear behavior of analog circuitry and is suitable for both mixing and mastering.



Avedis E27

The E27 was created to fill the need for a high quality modular equalizer. High performance, versatility, ease of use, and simplicity is at the core of the E27's design. Some of the best analog gear from the past was the inspiration for its characteristic sound. Outstanding quality and most suitable parts are used throughout – gold-plated switches, high performance capacitors, high-quality transformers, and custom machined aluminum knobs.

Today's engineers deal with many different types of recording equipment from older high-end analog gear to the newest digitally controlled recording equipment. With this in mind, the E27 can interface easily with many types of gear including balanced or unbalanced sources, high or low impedance loads, even unbalanced loads.

The level knob controls up to 16 db's of cut and boost but for those who only need a few db's, the travel of the pot starts slow and speeds up at the extremes giving the user more fine control at levels of 6 db's or less. Knob positions are not only easy to see from a distance but are also felt – the level pot knob has a small point so you know where you are without looking at the eq. The outer frequency control knob has a knurl texture for ease of grip.

- Avedis Kifedjian



PSP E27 specification

Bit depth

PSP E27 supports 32- and 64-bit processing precision.

Channel setup

PSP E27 supports mono-mono, mono-stereo and stereo-stereo channel setup.

- Stereo-stereo: both channels are processed through PSP E27 plugin.
- Mono-stereo : mono track is copied as two independent channels
- Mono-mono - only left channel is processed.

Sample rates

PSP E27 supports from 44.1 kHz up to 384 kHz sample rates.

Latency

PSP E27 produces ultra low latency. Plugin sends info to the host application for proper latency compensation. Click **PSP** label under POWER button to check current latency info.

PSP E27 controls

PSP 500 launchbox

Control section is located on the right side of the plug-in.



Power

The Power button turns off the main audio engines, but keeps the oversampling algorithm active in order to prevent unpleasant clicks. Toggling the Power button is the fastest way to check PSP E27 plug-in influence on the sound.



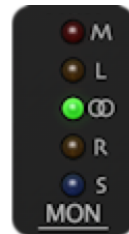
BPS

These two buttons work similarly to the Power button, but they refer to channels independently. Use the Power button or BPS buttons to disable the E27 and PA11 modules. Click the BPS label to bypass both channels instantly.



MON

These options let you choose which channel (or channels) within the stereo field you wish to monitor. Click or scroll to select between available monitoring options: Middle/Left/Stereo/Right/Side.



MS

MS shows the current stereo processing mode: Left/Right or Middle/Side. Click on MS to activate Middle/Side processing instead of Left/Right. The processing mode is also displayed on the tape label under the 500x modules.



PA11

Click this label to add PA11 modules to the processing chain. Please read the PA11 description for more details.



2x

Click on 2x to duplicate E27 modules in the processing chain.



LINK

Click LINK to engage link mode between channels. Activating link mode maintains the original settings of all parameters. To force the same setting (clear the difference between controls) for all linked channels, press cmd (MAC) or ctrl (PC) while moving a knob.



Tape label

Label shows current processing mode and module assignment to the supported channel. Click on this control to change stereo mode from LR to MS.



PSP

Click on PSP label to check version number, authorization and latency info.



E27

E27 has three band sections and one control section.

IN

Click on the IN button to process sound through the E27 Module. The button state is indicated by the red LED. When the E27 filters are disabled, sound is still processed through some parts of the analog-modeled circuit. Keep in mind that digital bypass can only be enabled in the main panel section (check BPS and Power controls).



LS

The Low Shelf button is located on the left side of the E27. Click on this button to engage the shelf filter characteristic instead of the bell filter characteristic. Low shelf mode is available for five different frequencies: 63/82/120/200/300 Hz.



HS

The High Shelf button is located between IN and Low Shelf buttons. Click on this control to engage the shelf characteristic for the high band filter (all nine frequencies).



Filter knobs

Click on the red (internal) part of the knob and drag (or scroll) to set the desired gain level: from -16 dB (cut) to +16 dB (boost) per band. Scrolling increases or decreases gain at +/- 1dB. Double click on the gain knob to return a band to its default value (0dB). Hold the shift key while adjusting for more precise scrolling.

Click and drag (or scroll) to move the external part of the knob. Alternatively, click on the description of the desired frequency control. Click on the OFF label to turn off the filter. Click a second time on OFF to set the filter to the last used frequency.



PA11

PA11 is a special module for preamp processing and external control of the E27. Click on PA11 button on the right side of the **plug-in** to make it active.

Drive

Click and drag (or scroll) to control output distortion. Setting the Drive to 0dB offers a nominal level of saturation from PSP E27. The Drive knob allows you to increase or decrease the amount of saturation.



HPF

Click and drag (or scroll) to set the high-pass filter frequency. Use this knob to get rid of unwanted low frequencies in the mix.



Output

Click and drag (or scroll) to set the Output level for the channel. The signal will be boost or cut after being processed in E27 modules. Use this knob to make up lost level, or cut back to compensate for boost.



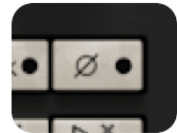
28k

Click the 28k button to enhance high frequencies. This button turns on special bell filter processing at 28kHz, which causes a gentle and musical boost in audible bands.



Polarity

Click to change the polarity on the current channel. This button engages a special algorithm with less noise and clicks than the normal algorithm .



TrafoX

Click to bypass input and output transformers in the channel chain. It disables the harmonics production typical for audio transformers. There is only one input and output transformer per PSP E27 plug-in instance.



AmpX

Click to disable distortion produced by the operational amplifier and active filter circuit emulation in the E27 module.



Tips and Tricks

Filter dependency



Filters within a single E27 module are interdependent and they affect on each other, due to the hardware's internal construction and the relationship between capacitors and other electronical elements. The difference between sound on the left and right setting is gentle, but audible (about 1dB).

Linearity



Enable TrafoX and AmpX buttons to disable the non-linear behaviour of PSP E27. This is the easiest way to get rid of distortion. This option is especially useful for mastering if there is a need to work on bands with clean linear filters. Keep in mind that the filters' characteristics and interdependency won't change.

Bypass



There are different types of bypass buttons in PSP E27 plug-in (in descending order):

- **Power** – disables the main audio processing. Even when the Power is disabled, the E27 keeps oversampling to prevent unpleasant clicks.
- **BPS** – works similarly to the Power button, but this refers to one (or both) of the channels. BPS buttons do not disable MONitoring mode.
- **PA11** – removes PA11 from processing chain. Disables everything that was set in PA11 (Drive, HPF, Output boost, 28k, Polarity, etc.).
- **x2** – removes the extra E27 module from the processing chain.
- **IN** (E27 button) – disables the analog simulated filters within the module, but keeps the signal processing through some parts of the circuit.
- **OFF** (PA11 and E27 knobs) – turns off the current filter processing.

Mono-Stereo processing



PSP E27 plugin supports three channel modes: Mono-Mono, Mono-Stereo and Stereo-Stereo. Set mono-stereo channel support in your DAW and use PSP E27 plugin with slightly different settings for Left and Right channel processing to create wide stereo field from a mono track.

PSP E27 SINGLE EDITION

The PSP E27se is a simplified version of PSP E27 audio plugin. It is based on the same great audio engine, but it has a redesigned, smaller GUI for quick adjustments. The PSP E27se is equipped with one E27 and one PA11 module. It is suitable for both mono tracks and stereo stereo in which there is no need to use separate settings for the Left and Right channel.



Preset Handling & View Options

We provided PSP E27 and PSP E27se with a set of factory presets. and with additional sets of presets designed by professional audio producers from around the globe. These included presets demonstrate the features of the plug-in and can 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.

You access the PSP E27 presets from the PSPaudioware standard PRESET BAR at the top of the plug-in interface.

Preset Browser

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 manager 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):

To select a preset, you can 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.

<Factory presets are built into the plugin and cannot be edited!>

Designer (shows only additional sets of built-in presets):

In this view, the presets are sorted by the preset designers. These allow you to quickly navigate through the presets designed by top engineers. To switch between preset designers, you can use the browser to the left hand side. To select a preset, you can 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.

<Factory presets are built into the plugin and cannot be edited!>

My presets (shows only your presets):

This view shows all of the presets you have created and saved, or downloaded and added to your custom presets for PSP E27.

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\PSPAudiware.com\User Presets\PSP E27

C:\Users\Username\Documents\PSPAudiware.com\User Presets\PSP E27se

For Mac users, this is located at:

~/Documents/PSPAudiware.com/User Presets/PSP E27

~/Documents/PSPAudiware.com/User Presets/PSP E27se

<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, you can 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.

Copy/Paste



Copy/Paste feature to the plugin for quickly transferring 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.

A/B System

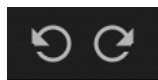


A/B system for quickly checking and auditioning changes to the plugin settings.

The **A/B Button** at the top of the interface below the preset browser window allows you to 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



a undo/redo feature to the plugin to quickly navigate between setting changes.

To use the undo/redo feature, you can 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 this percentage up or down to change the GUIs zoom factor. Double click to reset its state to the default size (100%). You can also resize the plug-in interface by just dragging the left bottom corner of the plug-in to any size you like.



CONFIG section

When clicking three parallel lines - 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, 12 or Pro Tools HD 11, 12 or Pro Tools Ultimate

All DAWs

- The latest iLok License Manager application installed (iLok USB license key not required)

Mac (both Intel and Apple Silicon processors are supported)

AudioUnit

- macOS 10.12 – macOS 14 Sonoma
- 64-bit AudioUnit compatible host application

VST

- macOS 10.12 – macOS 14 Sonoma
- 64-bit VST compatible host application

VST3

- macOS 10.12 – macOS 14 Sonoma
- 64-bit VST3 compatible host application

AAX

- macOS 10.12 – macOS 14 Sonoma
- 64-bit Pro Tools 12 or Pro Tools HD 12 or Pro Tools Ultimate

All DAWs

- Up to date iLok License Manager application installed (iLok USB license key not required)



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

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.

Problems with the installation, activation or authorisation? 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.

Bugaj 12

05-806 Komorów

Poland.

ph. +48 601 96 31 73

www.PSPAudioware.com

contact@PSPAudioware.com