PSP Datamix A567

Tracking and Mixing console equalizer

plug-in officially endorsed and approved by

Eddie Kramer

Operation Manual

PSPaudioware.com

Acknowledgments

Special thanks go out to:

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Eddie Kramer on the Datamix console

I met Jimi Hendrix and recorded his first two albums in 1967 and the first few months of 1968 at Olympic Studios in London. On April 17, 1968, I emigrated to the US and moved into a brand new studio called The Record Plant. When I arrived at the studio on April 18, the first thing Hendrix said to me was, "Where the hell you been?"

Looking around the studio, I was impressed with the towering 1" 12-track Scully tape machine, and a brand new 36-channel Datamix console with equalizers on every module. I recorded and mixed Electric Ladyland on it, as well as tracks and albums by Vanilla Fudge, Joe Cocker, Graham Nash, NRBQ, and many others.

The console had a unique sound, and everything about the way it worked had to be carefully adjusted, as the equalizers were extremely sensitive. Too much gain in the midrange could take your head off! But with careful management of the frequencies between 2k and 3.5k, a great guitar sound could be created. It really did give presence to electric and acoustic guitars, piano, horns, etc.

The top end had a unique glossy sound from 10k and above that sounded great on Mitch Mitchell's cymbals. The low end was equally effective, and had a very strong response below 100 Hz – great for bass drum and bass guitar.

The mic preamps overloaded very quickly, so one learned to adjust with caution. However, because of their unique sound, I was able to use the distortion to get more aggressive effects. Overall the equalizers were not neutral, but that was what gave the mixer a quite forward and edgy sound.

There was always a certain amount of "dare I push this EQ to make it go over the top?" risk, but somehow it all worked out – because the music that came out of that console has stood the test of time.

In today's market, it's great having the Datamix mic pre and equalizer available to use on contemporary Pop/Rock, R&B, Hip Hop, Metal – where every producer/engineer is looking for something different. This is the weapon of choice!

Eddie Kramer

Engineer, Producer, Knob Twiddler Worked with: Jimi Hendrix, The Beatles, Led Zeppelin, Kiss, Rolling Stones and more...

The Datamix Console Story

Eddie Kramer behind the Datamix board at the newly completed Electric Lady Studio A. Photo courtesy of John Veltri.

While the public knew Jimi Hendrix best for his incredible guitar playing and timeless songs, he was also known for his attention to recording technique and innovation. His constant desire for more inventive ways to express his musical ideas led him to all sorts of experimentation in sound.

Helping to guide Hendrix on this journey was famed engineer Eddie Kramer, who worked with Hendrix at Olympic Studios in London to record his first two albums. Kramer started recording music and installing audio equipment in London in his teens, and in his early career worked on recordings by the Beatles (including "All You Need Is Love" and "Baby You're A Rich Man") as well as albums by the Rolling Stones, Traffic, and Small Faces. This was only the beginning of a career spanning over 60 years and earning multiple awards and nominations, working with artists in genres ranging from classical guitar to country, blues, and heavy metal. His live recordings became legendary, including the 1969 Woodstock festival and concerts by Kiss, Curtis Mayfield, the Rolling Stones, and Peter Frampton.

Kramer said of his work with Hendrix, "Jimi loved sounds – the crazier and more experimental, the better. The sounds in my imagination were constantly being tried out, like backwards echo, uneven reverbs and delays... nothing was too weird for his ears. We just had so much fun working together."

When Hendrix returned to the United States in 1968 (soon followed by Kramer), he found an ideal place to work in New York City – a brand-new studio called the Record Plant. Created by engineer Gary Kellgren and his business partner Chris Stone, the Record Plant was deliberately designed to encourage creativity among artists by being a comfortable and welcoming space rather than the often-clinical studios that were the norm at the time. This sense of comfort was

augmented by a variety of cutting-edge technology – all centered around a custom console from a new company called Datamix.

Datamix founder Bill Stoddard was an engineer and electronics designer who worked at many famous studios over the course of his career. A chance meeting with jazz performer, composer, and multi-track recording pioneer Don Elliott, who needed a new console for his studio, turned into the first Datamix board. Its great-sounding inductor-based EQ was a major part of what Kramer described as its "unique though flawed sound" – and when the Record Plant opened in the spring of 1968, its Datamix console became the driving force behind Hendrix's legendary third album *Electric Ladyland* and many other hit records of the 1970s.
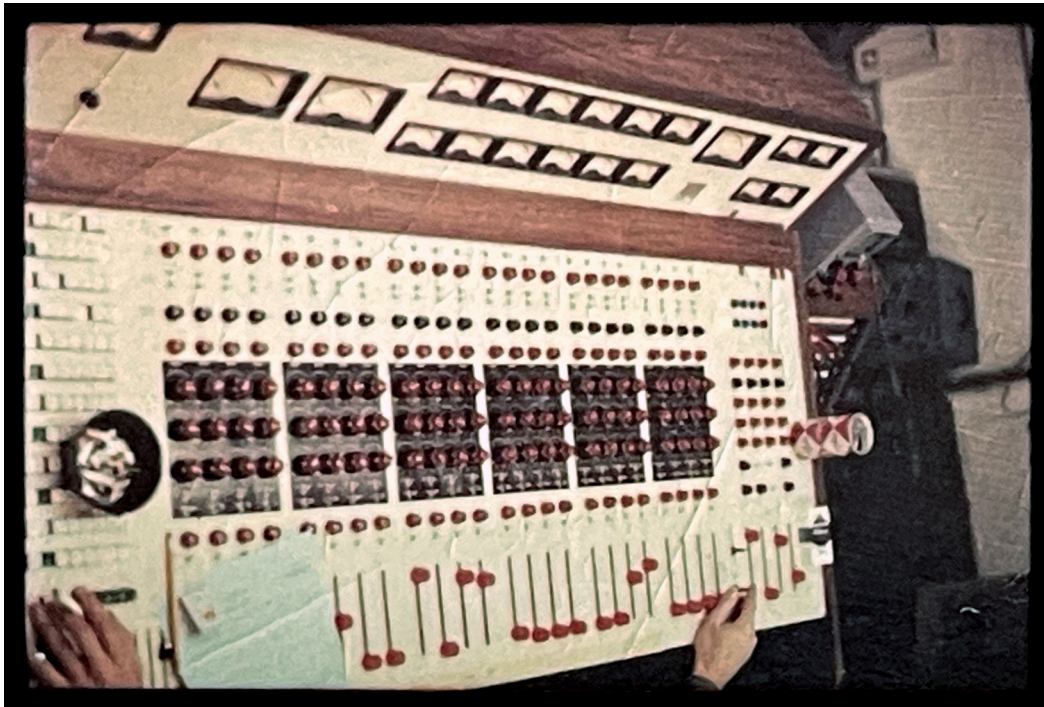
Photo courtesy of Eddie Kramer.

When Hendrix embarked on the construction of his own Electric Lady studios elsewhere in New York, a pair of Datamix consoles were ordered, but only one was finished – poorly, according to Kramer – by the time Datamix went out of business. Much of its inventory, including the unfinished second console, was recovered by the staff of Electric Lady, who completed the rebuilding of the first console and the construction of the second over a period of several months.

Sadly, Hendrix died only a few weeks after the studio's official opening, but in the last four months of his life, he took advantage of the Electric Lady recording environment to work with Kramer and record new material, revise and overdub existing music, and mix songs that would become part of the posthumous album *The Cry Of Love.*

Photo courtesy of Adam Piskorz.

In the ensuing years, Electric Lady and its Datamix consoles birthed its own set of hit records engineered and mixed by Kramer – from artists like Led Zeppelin, David Bowie, Carly Simon, Peter Frampton, Dionne Warwick, Kiss, and many others.

The Datamix consoles have become legendary for the unique sound of their EQs and preamps. One of the two Electric Lady consoles is currently on display at the Museum of Pop Culture (MoPOP) in Seattle, while other consoles were often dismantled into individual modules. Thanks to the generosity of Adam Piskorz, the PSP team had the opportunity to work with eight modules from the original Record Plant console, forming the sonic and operational foundation for the PSP Datamix A567 plug-in.

We have made every effort to recreate the sound quality and flexibility of the original hardware, and the plug-in has been approved by Eddie Kramer himself. While the original Datamix consoles have been lost to history, musicians and sound engineers looking to capture that amazing sound can now turn to PSP Datamix A567.

Dr. Mike Metlay

Overview

Thank you for your purchase of PSP Datamix A567!
This is a tracking and mixing processor that evokes the sound of classic recordings known from such great studios as Electric Lady and The Record Plant.

PSP Datamix A567 models an equalizer module taken out of the classic first-generation Datamix console. The equalizer is designed in such a way that it almost never sounds "neutral" – just putting it on a track as is, with all bands in the "0" positions, is enough to make you love it or hate it. Even with all bands turned off, there is still plenty of sonic character coming from the preamp and output sections. PSP Datamix A567 is a great way to add some old school mojo and character to any track or mix.

Features

- Three bands of equalization: Low (peaking on boost, peaking or shelving on cut depending on the frequency), Mid (peaking boost and notch type cut), and High (peaking boost, shelving on cut).
- FAT double sampling: In PSP Datamix A567, FAT is automatically switched on for low (below 50 kHz) sample rates, and off for higher sample rates. This ensures accurate processing independent of the sample rate.
- 64-bit double precision floating point math for ultra-low cumulative errors in the filters and proper filter characteristics across entire frequency spectrum.
- Preamp section modeling on input.
- Output section with transformer emulation.
- Variation of sound character via selecting the tuning of a specific channel, an average setting, or an "ideal" setting corresponding to the precise frequencies on the control labels.
- Adjustable left/right channel tuning spread.
- Alt Q mode allows for a gentler effect by fixing Q for each band regardless of selected frequency.
- Sharp mode adds pronounced resonance in the High band.
- All actual parameter values, like gain and frequency, may differ from displayed values. This is a typical characteristic of analog equalizers.

PSP Datamix A567 front panel

PSP Datamix A567 captures the sound character and functionality of an early Datamix console equalizer. The plug-in contains an extended set of frequencies for extra flexibility beyond that of the original hardware, without sacrificing the essential timbre of the original hardware.

PSP Datamix A567 Controls

PSP A567 Datamix has a very straightforward user interface, as you'd expect from a simple 3-band equalizer. As such, its controls need only basic explanation.

General equalizer panel controls:

EQ (OUT / IN): Click this toggle switch to engage (IN) or bypass the equalizer section (OUT). Note that this does not bypass the plug-in entirely – the preamp and output section emulations stay active, adding punch and grit to tracks even with no EQ bands in use.

DRIVE: This knob adjusts the global drive level of all algorithms. The drive level is variable between –30 dB and +30 dB. The Drive setting usually doesn't influence the output level very much, but under heavy saturation, you may notice a slight drop in output level.

Drive overload light: This light will flash when the preamp or output goes into saturation.

LOW, MID and HIGH: Click selected toggle switches to enable (band name) or disable (OFF) the selected section of the equalizer.

Red Gain knobs: These knobs control the gain of a selected band. They have a range of –16 dB to +16 dB. Please note that neutral positions of those knobs don't necessary refer to neutral characteristics of the filters.

Black Frequency rings: These outer rings select the frequency of a band. Two grey rings appear on the active controls' area when the mouse hovers over them. Click and drag or use a mouse wheel to change the frequency. Please note that besides the labeled frequencies, there are added intermediate values and frequencies above and below what the hardware can do.

Numerical Values under knobs: These values appear whenever the cursor is hovering over the knob, and are visible as long as the cursor is hovering or the knob is dragged.

OUTPUT: This knob adjusts the global output level. The output level is variable between -20 dB and +20 dB.
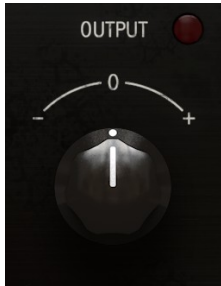
Output overload light: This light will flash when 0 dBFS is exceeded on output. Don't worry, it's not indicating any undesirable digital distortion – unless you've got some kind of signal processing after PSP Datamix A567 in the audio chain that's not able to handle levels above 0 dBFS.

Channel Select, Variation, Alt Q, and Sharp Mode:

Channel Select: Chooses the channel-specific tuning for the plug-in. PSP Datamix A567 actually models 8 unique channel equalizers from a Datamix console, so you can recreate the slight variations in band parameters you'd find across a console from channel to channel.

μ – selects an average tuning of the 8 channels as a hardware reference.
1-8 – selects the tuning of one of the 8 different individual channels.
– selects the "ideal" tuning you'd expect according to the actual labels on the plug-in knobs.

Variation: Adjusts the amount of the variation (or stereo spread) based on the selected channel in comparison to the average channel μ. On mono tracks, this slider controls the left channel's variation, and on stereo tracks, it controls both channels' variation in opposite directions. Note that the stereo spread doesn't affect plug-in tuning when you select the μ channel.

The center (default) slider position retains the exact tuning of the channel you've selected. If you move the slider to the right (+), the mono/left channel will move away from the average (μ) value, and the right channel will move in the opposite direction. If you move the slider to the left (–), the mono/left channel will move toward the average value and the right channel will move away from it.

You can use this slider on the # channel, but it would have a huge impact on the sound, since there are considerable differences between the idealized label values and real hardware!

Alt Q: Engages an alternative Q mode, which lets you increase the frequency of any of the three bands without narrowing the Q. This Alt Q mode doesn't exist in the real hardware, but serves to give the plug-in a more "gentle" overall effect.

Sharp: Engages the Sharp mode of the equalizer. Not all A567 equalizers have the same band characteristics; some units have a pronounced resonance in the High band caused by a slight circuit modification. This resonance varies, yet remains audible across the entire gain range of the High section. At certain settings, the Sharp mode may affect the Mid section's sound as well.

Rear panel

Clicking on the front panel's PSP Datamix A567 label opens the rear panel About box, on the Plugin Settings tab. Click on the link to open the PSPaudioware.com website. Click on any label other than the web site link to close the rear panel and return to the front panel.


The Global Settings tab lets you access this manual or set whether Hints (floating information boxes that appear when hovering over a control) are visible or not. It also shows the installed version of the software, for help with troubleshooting. Please see the **Config section** of this manual for more details.

PRESET HANDLING AND VIEW OPTIONS

Every PSP plug-in comes with a large library of factory presets. You can use them as a starting point for experimenting with your own sounds, examine them to understand how the various features work, or keep them handy for when a track or mix needs a quick and high-quality way to create an effect or fix a problem.

To access the preset library, just click on the Preset Bar along the top of the plug-in window. If you're familiar with other PSPaudioware plug-ins, you'll find that this one works exactly the same way.
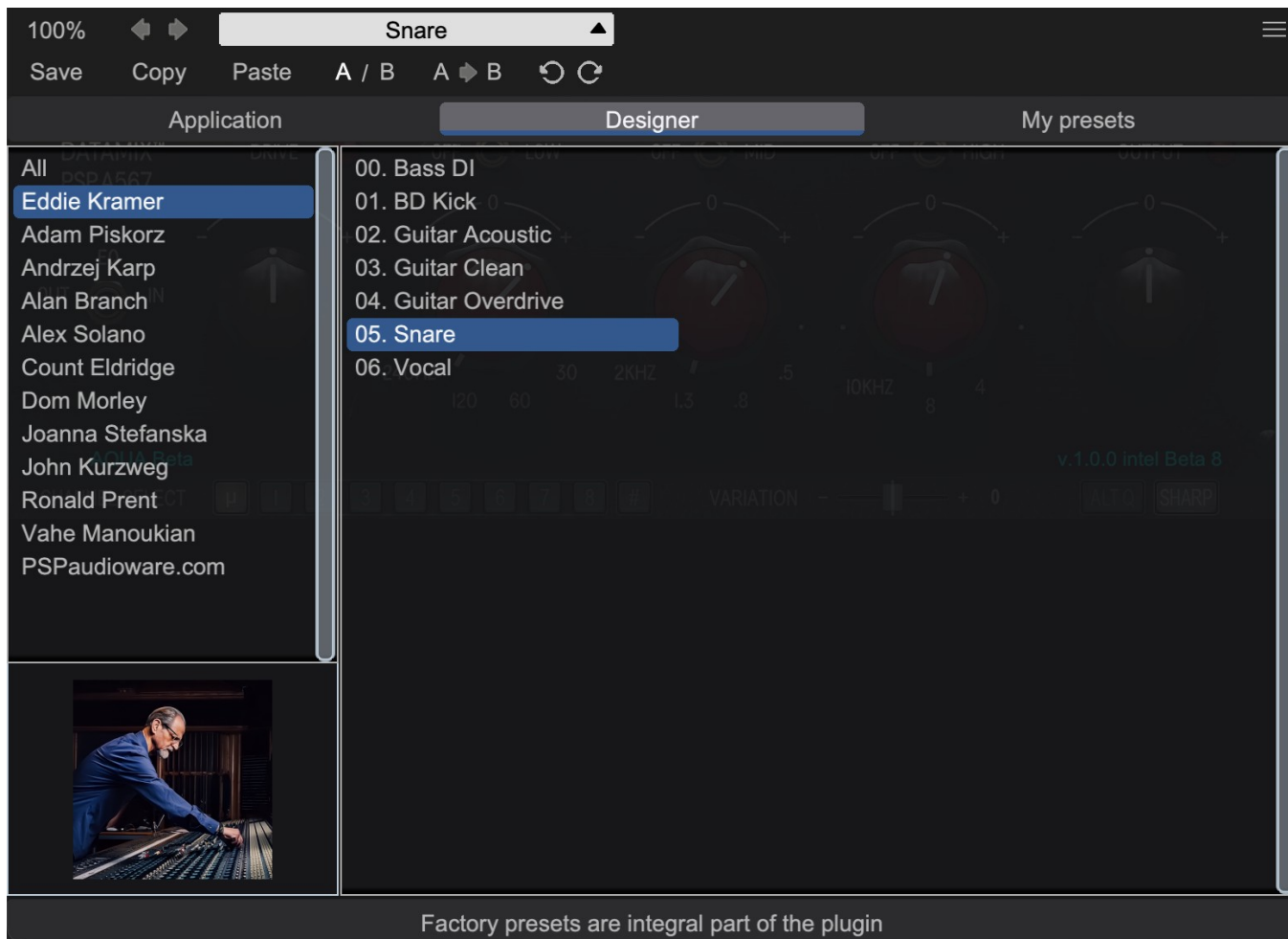
Preset Browser

PSP Datamix A567 features a comprehensive preset management and browser system. To access the preset browser, simply click on the preset name window at the top of the plug-in (which displays 'Default' when the plug-in loads).
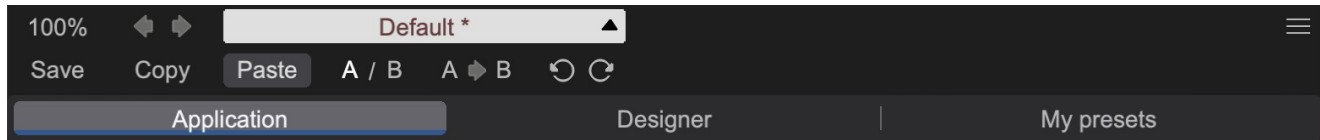
The new preset manager has three main categories which can be accessed via the tabs at the top of the preset browser: **Application**, **Designer**, and **My presets**.

Application – shows all factory presets, sorted by application or type of effect. These can be selected from a list on the left side of the preset browser.

Designer – shows all factory presets, sorted by designer. A photo of the designer is displayed for each of their presets. Click on the photo to open the designer's website.

My presets – shows only the presets you have created and saved, or downloaded and added to your custom presets for PSP Datamix A567.

NOTE: The Factory presets are built into PSP Datamix A567. While you can't edit them directly, you can make adjustments to them, and then save the result as a user preset.

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 Datamix A567

For Mac users, this is located at:

~/Documents/PSPaudioware.com/User Presets/PSP Datamix A567

NOTE: You can find the exact file location by clicking on the **Show File in Finder** button at the bottom of the preset browser window.
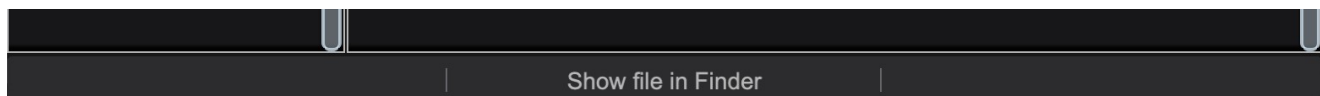
To select a preset, simply click a preset name in the right window. On the first click, the preset will be temporarily loaded so that you can audition it while still in the preset browser. To confirm the preset choice and get back to the main user interface, double-click the preset name again.

Copy / Paste

The **Copy/Paste** feature is useful for when you're running two or more instances of the plugin and you want them to have identical settings.

Of course, you can always open a new instance and load the same preset as your first instance has, but this only works if your first instance hasn't been tweaked at all since the preset was loaded. To share your tweaks between instances, use **Copy** and **Paste**.

To use this feature, simply click the **Copy** button, open a new instance of PSP Datamix A567 where it's needed, and click the Paste button to load the first instance's settings.

This feature can be particularly useful for processing similar instruments or sounds, when only a few minor tweaks are needed for each instance.

A/B System

The **A/B system** lets you quickly audition changes to your settings. You can compare how different tweaks work in a track or mix, or even audition two different presets on the fly.

The **A/B Button** allows you to quickly switch between the current plug-in settings (**A**) and a previous group of settings that you've previously stored (**B**).

The **A>B Button** copies the **A** settings over to the **B** slot. This lets you temporarily 'bookmark' your current settings, make more tweaks, and then compare the new tweaks with your 'bookmarked' settings using the **A/B Button**.

Undo / Redo

The **Undo/Redo** feature can be extremely important when designing presets! We all know the frustration when we make one too many edits and ruin a previously great sound. With the **Undo** and **Redo** buttons (the counterclockwise and clockwise arrows as shown above), you can step backward and forward through your edit actions until you're back where you wanted to be.

These buttons will let you undo a preset selection, returning you to your previous preset with all settings as they were when you stopped editing it.

GUI resizing

The percentage at the top left shows the current user interface size. Click on it to reveal a dropdown menu of size choices, or hover your mouse on it and scroll up and down to change the size quickly. Double-click to reset it to the default size (100%).

You can also resize the plug-in interface by click- dragging the right bottom corner of the plug-in to any size you like.

Config section

Click the icon with three parallel lines in the top right corner to open the **CONFIG** menu. You will find controls to open the manual, hide or show mouse-hover tool tips (Hints), and check your current plug-in version with build number.
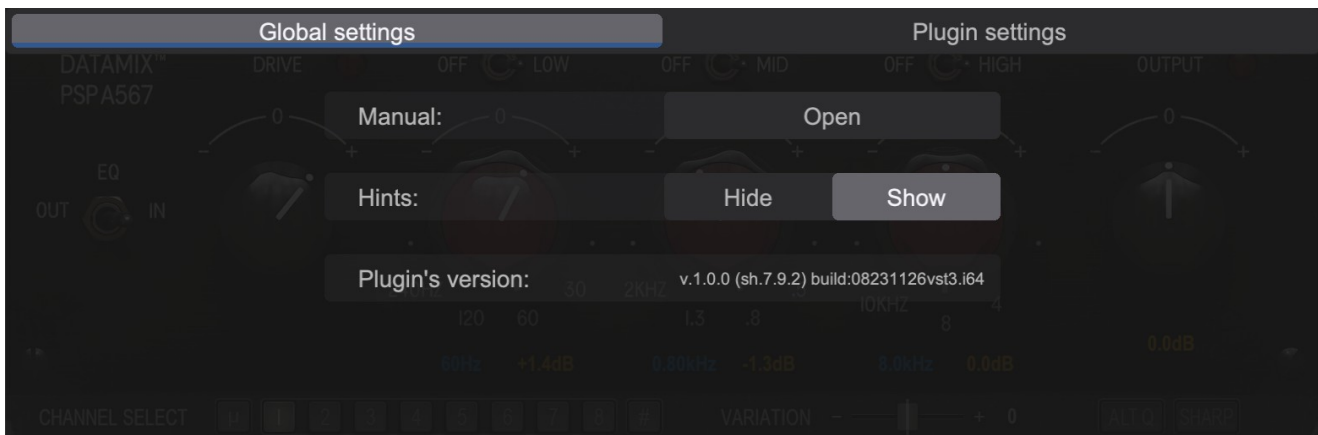
These functions are also available in the **Global Settings tab** on PSP Datamix A567 back panel, which is accessed by clicking the PSP Datamix A567 name on the front panel.

Clicking the Plug-in Information and Settings tab returns you to the main view.

Presets designed by Eddie Kramer

These overall settings will give you a good starting place to get your mixes going!

Bass DI
Low: 85 cps   +2 dB
Mid: 1.3 K   +2dB
High: 8K   0dB
Drive is at noon
This is a punchy bass, meant for a rock or hard driving track.

BD Kick
Low: 60 cps +1.8dB
Mid: 3K   +2 dB
High: 8K 0dB
Drive is all the way up (+30dB).
Choosing the amount of input level into the plug-in for effect is up to the users discretion.
This is meant for a rock song or a track that needs to be punchier to cut through the mix. It was originally intended for a well-recorded and slightly processed bass drum.

Guitar Acoustic
Low: 60cps   +2dB
Mid: 3.08K   +1.5dB
High: 10K   +2dB
Drive is at noon
This is to provide a nice starting ground to a well-recorded acoustic guitar.

Guitar Clean
Low: 60cps 0dB
Mid: 1.5K   +1.5dB
High: 2.8K   +1.1dB
Drive: +4.2 dB
This is for a clean guitar that can be used for a country or rock sound.

Guitar Overdrive
Low: 120cps   +1dB
Mid: 1.6K   +2dB
High: 2.8K   +2dB
Drive: +2.4dB
This is for a guitar that was recorded well, a setting that helps it sit in the mix and be compression-ready.

Snare
Low: 170 cps +2.4 dB
Mid: 1.3K   +2 dB
High: 8K   +1 dB
Drive is at noon
This is meant for a well-recorded and slightly processed rock snare that needs bite and body to cut through the mix.

Vocal
Low: 240 cps   -1dB
Mid: 3K   +2dB
High: 8K   +3.2dB
Drive   +2.4dB
This setting was intended for a rought guide vocal that was lacking in clarity, which was restored via filtering in the low mids and bump in the top end.

Minimum System Requirements

In order to run PSP Datamix A567, you'll need to install the free **iLok License Manager** application, but you don't need a hardware dongle. By default we provide 3 licenses which can be activated in 3 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.

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

All DAWs
- Up to date iLok License Manager application installed

macOS Intel or macOS AppleSilicon

AudioUnit
- macOS 10.14 – macOS 15 Sequoia
- 64-bit AudioUnit compatible host application

VST
- macOS 10.14 – macOS 15 Sequoia
- 64-bit VST3 compatible application

VST3
- macOS 10.14 – macOS 15 Sequoia
- 64-bit VST3 compatible host application

AAX
- macOS 10.14 – macOS 15 Sequoia
- 64-bit Pro Tools

All DAWs
- Up to date iLok License Manager application installed

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Processing

- All internal processing done with 64-bit double precision floats.
- PSP Datamix A567 supports sample rates up to 384 kHz.
- PSP Datamix A567 supports 32-bit and 64-bit floating point audio streams.

PSP Datamix A567 and Plug-in Latency

In order to achieve the highest quality results, PSP Datamix A567 requires a small buffer containing a number of samples in order to process your audio material properly. The number of samples needed was deliberately kept small so that the equalizer could be used in tracking— the internal latency is around 1 ms (one millisecond). The final latency may vary a bit based on sample rate.

That said, most modern DAWs include plug-in delay compensation, which eliminates the effect of the delay incurred by PSP Datamix A567 on playback. PSP Datamix A567 fully supports the latency compensation of all host DAWs, meaning that it accurately reports its number of samples of delay to the host DAW. Note that some host DAWs have limitations regarding how delay compensation is implemented, so be sure to refer to your DAW's user guide for more information. For your convenience the latency of the plug-in is reported on the back panel in samples and milliseconds.

Limitations of the demo version

We offer a 30-day evaluation period without any audio interruptions or control limitations. To get access to the plug-in and your unique authorization details, simply login to your account at our user area.

Support

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

www.PSPaudioware.com

The website is 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.

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