Analog Sound Digital Recall





www.WesAudio.com

WesAudio

_PANDORA

User manual

ΕN

Copyright 2024 by WesAudio



Thank You for the purchase of $_PANDORA$

Stereo Multiband Compressor with digital recall

With kind regards

Radoslaw Wesolowski and Michal Weglicki

Stereo Vari-mu Tube Compressor with Digital Recall

For years, multiband compressors have been revered for their ability to finely control dynamic ranges across different frequencies, shaping the balance and punch of countless iconic productions. **_Pandora** takes this to the next level, delivering an unparalleled analog compression experience seamlessly integrated with modern digital recall and automation. With its precise multiband control and intuitive digital interface, **_Pandora** is poised to become a cornerstone in studios worldwide, offering the perfect fusion of analog warmth and contemporary convenience.

Experience the future of compression – the classic depth of analog sound with the flexibility and power of digital technology in **_Pandora**.



TABLE OF CONTENTS

1		Overview	7
2		Main Features	7
3		Hardware	9
	3.1	Specification	9
	3.2	Installation and Compatibility	10
	3.3	3 Slots Stereo Module	12
	3.4	Front Panel and Main Functions	13
4		Analog Processing	15
	4.1	Sound	15
	4.2	XOVERs	15
	4.3	THD – Total harmonic distortion	15
	4.4	Output vs Make Up Gain	16
	4.5	Threshold	16
5		Software Setup	17
	5.1	Installation Process	17
	5.1	.1 For Windows Users	17
	5.1	.2 For OSX Users	17
	5.1	.3 Troubleshooting	18
	5.2	GCon Manager	19
	5.3	How To Check Firmware Version	20
	5.4	How To Perform Firmware Upgrade	21
6		Digital Control / Recall	22
	6.1	DAW Plug-in	23
	6.1	.1 Plugin Structure	25
7		Other Functions	28
	7.1	Memories	28
	7.1	.1 Synchronization Upon Connection	28
	7.1	.2 Preset Banks Feature	28

7.2	Metering	29
8	Hookup Diagrams	30
8.1	Hookup Diagram – Analog Cables With _TITAN	30
8.2	Hookup Diagram – _CALYPSO and _TITAN	31
8.3	Hookup Diagram – 500 Series Chassis	32
8.4	Other examples	33
9	Troubleshooting	34
10	Abbreviations and Terms	35
11	Warranty	36

1 Overview

_PANDORA is a fully analog unit with digital control, ensuring that all audio processing is handled exclusively through analog components. The digital aspect of the device is dedicated to configuring settings, enabling features like digital recall and remote control.

2 Main Features

___PANDORA offers a sophisticated blend of analog audio excellence with digital precision, designed for professionals seeking uncompromising sound quality and versatile control:

- **Purely Analog Design:** Multiband compressor with 24dBu of headroom, delivering superior audio quality
- **3-Band Control:** Crossover filters range from 40Hz to 2kHz, and 2kHz to 15kHz for precise multiband processing
- **Tuned Harmonic Distortion:** Each band features tailored harmonic distortion, optimized for its frequency range
- Highly Flexible VCA Compression: Independent VCA compressors on each band for maximum control
- Low Band SC High Pass Filters: 3 selectable sidechain high-pass filters for enhanced low-frequency management
- **High Band SC Low Pass Filters:** 3 selectable sidechain low-pass filters to isolate problematic high frequencies for precise triggering
- Parallel Compression: MIX knob allows easy blending of dry and compressed signals
- Modern GUI: Allows complete control of hardware parameters from the plugin interface
- **500 Series and ng500 Compatibility:** Fits standard 500 series racks and ng500 systems, including __TITAN.
- **Total Recall and Plugin Control:** Saves and recall settings via DAW integration for consistent session management.
- **Analog Automation in DAW:** Automates parameters like Threshold, Mix, and Make Up directly from your DAW.
- **Digitally Controlled, Isolated Analog Circuit:** Combines digital control with a pure analog signal path for optimal sound quality.
- **Digital Recall via USB or _TITAN:** Quick recall of settings through front panel USB or within _TITAN chassis.

- Accurate Metering: Gain reduction metering on both the hardware and plugin for each band, with input metering for each band in the plugin.
- Analog Automation: Supports analog automation within DAWs for seamless integration.
- **Touch-Sensitive Encoders:** 10 touch-sensitive encoders allow automation recording of specific parameters in DAW.
- **True Bypass:** Completely removes the unit from the signal chain when not in use, preserving signal integrity.

3 Hardware

This chapter will go through all analog features and explain all hardware aspects of _PANDORA.

3.1 Specification

Frequency response	20Hz-20kHz (0.2dB)
THD+N (WET)	0.009% (1kHz,0dBu)
THD+N (DRY)	0.005% (1kHz,0dBu)
Input impedance	10kohm
Output impedance	< 100ohm
Max signal level	+24dBu
Crosstalk (1kHz)	< -110dB
Attack	0.1, 0.3, 1, 3, 10, 30 (ms)
Release	0.1, 0.3, 0.6, 0.9, 1.2, Auto (ms)
Ratio	1.5, 2.4, 10
SC HPF Filter LOW	60, 90, 150 (Hz)
SC LPF Filter HIGH	3, 6, 9 (kHz)
Format	3 Slots 500 Series Stereo Module
Power consumption	160mA/+16V and 140mA/-16V (per slot)
Unit dimensions	115x133x158 mm
Box dimensions	118x162x234 mm
Unit weight	1 kg
Box weight	1,2 kg
Warranty	2 years

The unit must warm up for approximately 5 minutes before use. Temperature changes can impact the internal components, potentially affecting compression characteristics and slightly altering gain settings.

3.2 Installation and Compatibility

WesAudio _PANDORA compressor module is intended for installation in:

- <u>An API™ 500 Series compatible rack</u>
- _TITAN or any other ng500 compatible chassis,

WesAudio's _PANDORA module isn't standalone; it needs power from the rack system to function.

When unpacking, check for any damage caused during shipping. If there's a problem, contact your dealer immediately!

Module installation walkthrough:

Select the slot in the rack for the module and insert it, aligning the edge connector with the rack's matching connector. Gently slide the module into place until it is securely seated. Secure the front panel to the rack using screws provided by the rack manufacturer for stability. Be careful not to overtighten to avoid damaging the threads. Power it up, perform a quick test to ensure everything's functional, and most importantly, enjoy!

Ensure the rack is powered down completely to avoid potential module damage!

500 series compatibility note:

Each WesAudio device within the ng500 (Next Generation 500 series) lineup comes with a unique connector. This specialized connector serves as an extension to the standard 500 series, enabling your device to be controlled and recalled using the specialized GCon protocol. For instance, this connector allows compatibility with the _Titan 500 series 10-slot frame.



This extension is designed to work with the standardized plug type in the 500 series. Yet, some manufacturers use large screws on the plug, hindering device compatibility. Research indicates that over 90% of 500 series racks are compatible. For more information, please visit: <u>https://wesaudio.com/ng500/</u>.



3.3 3 Slots Stereo Module

_**PANDORA** occupies 3 slots in the 500 series format due to its extensive feature set. The 3-slot design allows for easy access to all parameters and convenient control over its features. However, despite occupying 3 slots, the unit provides **purely stereo processing**. Only slots 1 and 2 are connected to the 500 series chassis for audio routing, so these slots should be used to integrate the unit into your studio system.



3.4 Front Panel and Main Functions







LOW, MID, and HIGH Band (points 1-7 apply to each band):

- 1. **Gain Reduction (GR) Meter:** Displays the amount of gain reduction applied to each band, giving visual feedback on the compressor's performance.
- Threshold: Sets the compression start point, adjustable from -20 to +20dB. Any signal above this
 threshold will be compressed based on the chosen ratio. Setting the Threshold to +20dB will
 effectively disable compression entirely. Additionally, pushing the Threshold knob toggles the bypass
 on or off.
- 3. **Ratio:** Determines the strength of the compression applied when the signal exceeds the threshold, adjusting the compression amount.
- 4. **Output:** Adjusts the output level of the signal, with a range from -10 to +20dB, compensating for the gain reduction caused by compression. Pushing the Output knob toggles the solo mode on or off for the selected band. Pressing and holding the knob for one second will activate SOLO mode in a momentary way—solo will automatically disable when the knob is released.
- 5. **THD (Total Harmonic Distortion):** Controls the harmonic distortion applied to the compressed (wet) signal, offering two modes: MED (1% THD) and HIGH (2.5% THD).
- 6. **Attack:** Sets how quickly the compressor responds to incoming signals, with six selectable attack times: 0.1, 0.3, 1, 3, 10, and 30 milliseconds.
- 7. **Release:** The release time can be switched between 0.1, 0.3, 0.6, 0.9, 1.2 seconds or an Auto setting.

X-Over Frequency and SC Filter Section (LOW and HIGH band):

- 8. **LOW SC Filter:** Selects from three sidechain high-pass filter frequencies: 60Hz, 90Hz, and 150Hz, reducing the compressor's sensitivity to low-frequency content for the LOW band.
- 9. **LOW X-Over Frequency:** Sets the crossover frequency between the Low and Mid bands, with a range from 40Hz to 2kHz, defining the boundary between the two bands.
- 10. **HIGH X-Over Frequency:** Sets the crossover point between the Mid and High bands, adjustable from 2kHz to 15kHz, controlling the transition between the bands.
- 11. **HIGH SC Filter:** Selects one of three sidechain low-pass filter frequencies—3kHz, 6kHz, or 9kHz—reducing the compressor's sensitivity to high-frequency content.

Global settings:

- 12. **MIX:** Blends the wet (compressed) and dry (uncompressed) signals, enabling parallel compression.
- 13. **Output:** Controls the level of the signal leaving the compressor, used to compensate for any gain reduction caused by compression (-15/+15dB).
- 14. **A/B:** Two memory slots for storing and comparing different compressor settings.
- 15. Bypass: Bypass switch.
- 16. **USB socket:** Module control USB port.

4 Analog Processing

4.1 Sound

Analog multiband VCA compression offers a distinctive sound that combines precision with warmth, making it a favorite for dynamic control in a wide range of audio applications. By dividing the audio signal into multiple frequency bands, this type of compression allows each band to be processed independently, ensuring that low, mid, and high frequencies can be compressed without interfering with each other.

The VCA (Voltage Controlled Amplifier) topology is known for its fast and transparent response, which makes it ideal for handling transients and maintaining clarity, even under heavy compression. In an analog implementation, this results in a punchy, well-defined compression that preserves the musicality and depth of the audio, while adding a subtle harmonic richness due to the analog circuitry. This makes analog multiband VCA compression particularly effective in mastering, where precise dynamic control across frequency ranges is crucial for a balanced and cohesive mix.

4.2 XOVERs

Each XOVER filter features a gentle 6dB per octave slope, resulting in a smooth transition between frequency bands. This relatively shallow slope gives the filters a looser, more natural sound, making them ideal for musical applications where transparency and ease of use are key. While the filters may not offer the razor-sharp precision of steeper slopes, they excel in preserving the musicality of the signal, ensuring that each band interacts fluidly with the others.

It's worth noting that because of the wide characteristics of the 6dB per octave slope, some overlap occurs at the crossover points. This means that audio content near the crossover frequency may be heard in adjacent bands. While this can reduce the level of isolation between bands, it contributes to a cohesive, organic sound that many users find desirable in musical contexts. The broad, open quality of these filters makes them easy to set, resulting in a balanced and natural multiband compression experience.

4.3 THD - Total harmonic distortion

The **THD switch** enables additional distortion, meticulously fine-tuned for each circuit. Our proprietary design is renowned for delivering a highly desirable and musical sheen, particularly in the upper mids and high frequencies. In this implementation, each band features a specifically tailored THD configuration, ensuring optimal translation and performance for the isolated frequency ranges.

Feel free to experiment with the THD switch, as there is a lot happening under the hood. The unique harmonic coloration in each band can add warmth, character, and subtle richness to your signal, making it a powerful tool for creative sound shaping.

4.4 Output vs Make Up Gain

Each band features an **OUTPUT control** with a range of -10 dB to +20 dB, allowing for precise sculpting of the signal, even without applying any gain reduction. This flexibility enables you to adjust the volume of each band individually, providing a distinctive level of control similar to an equalizer. By raising or lowering the volume of specific bands, you can shape the overall tonal balance of the signal with greater precision, offering enhanced control over the processing.

4.5 Threshold

Each band features a **THRESHOLD control**, which allows you to set the point at which compression begins. In this particular implementation, setting the Threshold all the way to the right (+20 dB) effectively disables the compression. This functionality allows you to use _PANDORA as a saturation box or equalizer, without applying any compression, even when working with very high signal levels.

5 Software Setup

The WesAudio software package is accessible for download to all purchasers of the corresponding hardware unit at https://www.wesaudio.com/download .



For information on supported plugin types and platforms, please refer to the provided link.

5.1 Installation Process

To initiate the installation of the WesAudio software package, navigate to <u>https://www.wesaudio.com/download</u> and download the latest version of the software.

5.1.1 For Windows Users

- Initial Installation: Before beginning the installation, ensure that all WesAudio devices are disconnected from your computer.
- **USB Driver Installation**: Upon installing the USB driver, a notification will prompt you to connect all WesAudio devices. Please connect the devices as instructed.
- **Computer Restart Request:** Installation of the USB driver may necessitate restarting your computer. Although restarting is generally inconvenient, it is a crucial step to ensure successful installation of the USB driver.
- **Post-Restart**: After restarting, the installer should automatically resume. If the installer does not restart on its own, please manually reopen the same installer to continue the process.

5.1.2 For OSX Users

Due to the simpler nature of OSX architecture and its handling of USB devices, the primary consideration is to ensure all devices are connected before beginning the installation process. Once you initiate the installer application, you might encounter system warnings regarding the installer. In such cases, please disregard these warnings*. If necessary, you can bypass these warnings by accessing the context menu through an 'Option' click (or right mouse click) and initiating the installation process again.

5.1.3 Troubleshooting

If you encounter any issues during the installation process, please reach out to our support team at support@wesaudio.com, and we will respond promptly to assist you.

Below is a common issue along with suggestions that might help in diagnosing the problem:

- Issue: "Can't find my device in the plugin dropdown menu"
 - This problem can stem from multiple causes. On Windows, a critical step is to verify that the USB device is successfully recognized at the system level. You can check this in the "Control Panel -> System -> Device Manager."
 - Important for Windows Users: Installing the USB driver is essential for the hardware units to communicate with the software. This step is mandatory only during the initial installation. The driver installation option will be automatically disabled for any subsequent software updates.



5.2 GCon Manager

The GCon Manager is a versatile application designed for configuration management across compatible devices. It is located within the Application folder data:

- For OSX: Access it at "/Applications/WesAudio/GConManager."
- **For WINDOWS:** Find it in the folder chosen during the installation phase, typically "c:/Program Files x86/WesAudio/GConManager.exe" by default.

Main Features:

- Firmware Updates: Easily upgrade your device's firmware to the latest version.
- **Configuration Settings:** Modify unit settings, such as IP address configuration, to suit your needs.
- **Diagnostics:** Run diagnostic tests to ensure your unit is functioning correctly.
- External Controller Setup: Configure external controllers, for instance, for the ngLeveler.
- **Standalone Operation:** Control units directly without the need for a DAW (Digital Audio Workstation).

5.3 How To Check Firmware Version

Each device communicates its firmware version to your workstation, establishing compatibility between your host application and the connected device. To verify the firmware version or perform an upgrade, please use the GConManager _CONFIG application.

NesAudio GCon System v12.0.3612 - Connection Type: ser	vice		-	
ngTubeEQ 66		ngTubeEQ	WesAudio	
	Firmware	V12.0.3612 ACTIVE		
	HW VERSION: 1	CONNECTION: USB	UPTIME: 0:0	
		REBOOT	PGRADE WITH UPGRADE	
		66		
	DHCP	ON	~	
		0.0.0.0		
	MAC	d8:47:8f:20:73:9b		
	UDP PORT	9020	-	
	LEDs IOUCH Mode	MEDIUM Power / MEDIUM Resolution	~	
ВАСК				

5.4 How To Perform Firmware Upgrade

To update the firmware, navigate to the GConManager UPGRADE section and press the "Start" button. This starts the update process for any modules that do not have the latest firmware version.

Applications		
▶ Getting Started	☆ ^	8
	Firmware Upgrade	×SETTINGS GCon settings_logging
	Version	configuration, advanced options
	Forced mode (Ignore version check)	PLUG-INs
	Standal Partial progress control :	lug-ins Selector - choose plug-in types and products to be installed
	Main progress	
	QUIT START	
	_SUPPORT	

6 Digital Control / Recall

This chapter delves into the comprehensive options available for managing _PANDORA and automating its settings. The cornerstone of _ PANDORA 's automation capabilities is its integration with Digital Audio Workstations (DAW) through a plugin, which is available in all common formats. This seamless convergence between hardware and digital software opens a wide array of creative possibilities and enhances workflow efficiency.

DAW Plugin Control:

DAW plugin control bridges the analog-digital divide, enabling users to manipulate hardware settings directly from their DAW. This fusion of the tactile and the virtual is not merely convenient but transformative, changing how producers and engineers interact with their gear.

Benefits of DAW Plugin Control:

- **Precision and Recall:** The ability to precisely recall settings for sessions is invaluable, ensuring mixes can be revisited or altered without the need to manually reconfigure the hardware. This feature is crucial for those working on multiple projects or needing to maintain consistency across sessions.
- **Automation Capabilities:** Integration with the DAW allows for the automation of every _ PANDORA parameter within the digital environment. This feature provides dynamic changes in settings over time, infusing tracks with movement and vitality without manual intervention.
- Workflow Efficiency: Manually adjusting settings on hardware units can be cumbersome, particularly in complex setups. DAW plugin control simplifies this process, facilitating quick changes and A/B comparisons without physical interaction with the unit, thereby streamlining the production process.
- Enhanced Creative Potential: Merging the analog warmth with digital control flexibility broadens the creative spectrum, enabling real-time experimentation and the achievement of effects that might be challenging or impractical to accomplish on the hardware alone.
- Accessibility: DAW plugin control ensures full accessibility and adjustability of _ PANDORA features from the workstation, a boon for those with spatial constraints or other limitations preventing direct access to their hardware.

In essence, _ PANDORA DAW plugin integration marries the rich, analog sound quality with the precision and versatility of digital control. This not only amplifies the functionality of _ PANDORA but also elevates the music production process, offering unprecedented control and flexibility in a traditionally analog setup.

6.1 DAW Plug-in

The _PANDORA plug-in extends comprehensive control over all parameters of the unit, ensuring seamless integration into any digital audio workstation (DAW) environment. Designed to be versatile and accessible, it supports all common plug-in standards, including VST2, VST3, AU (Audio Units), and AAX, making it compatible with a wide range of software platforms.



_PANDORA is true stereo compressor – that means that detector circuits of each channel are working on a summed signal in the side chain circuit. This makes it impossible to work in dual mono mode – we



can't process two independent tracks on each channel simultaneously – like kick and snare for example. However, it is entirely possible to work with only one mono channel at a time.

6.1.1 Plugin Structure







For detailed explanations of each control and its functionality, users are encouraged to consult the chapter titled "Front Panel Functions." This section provides comprehensive insights into how to interact with the _PANDORA, whether you're adjusting parameters on the physical unit or via the plug-in.

- 1. **Undo:** The Undo feature in the _PANDORA plug-in allows users to revert to the previous state before the most recent adjustment was made. This function is essential for quickly correcting mistakes or reassessing changes without permanent consequences to the settings.
- 2. **Redo:** Following an Undo action, the Redo function permits users to reapply the last change that was undone. This feature ensures that no adjustment is final until the user is satisfied, providing an additional layer of flexibility in tweaking the settings.
- 3. **Previous Preset:** Loads the previous preset from preset database.
- 4. Next Preset: Loads the next preset from preset database.
- 5. Preset Name/Selector: Allows for the selection, viewing, and deletion of presets.
- 6. **Preset Save:** Saves currently selected presets.
- 7. Preset Save As: Facilitates saving current settings as a preset providing name and preset details.
- 8. Preset Info: Displays details of the currently loaded preset.
- 9. Menu:
 - **Resize:** Adjusts the GUI size (75%/100%/125%/150%/175%/200%), catering to different screen sizes and user preferences.
 - Reset Parameters to Default: Resets all plugin parameters to their default states.
 - Shows currently installed plug-in version.
- 10. Bypass: Allows to engage/disable bypass on the hardware unit.
- 11. **Mix:** Balances between the wet (processed) and dry (unprocessed) signal, allowing for parallel compression or blending effects.
- 12. LOW X-Over: Adjusts the crossover frequency between the Low and Mid bands (40Hz to 2kHz), determining the cutoff point for low frequencies.
- 13. **HIGH X-Over:** Adjusts the crossover frequency between the Mid and High bands (2kHz to 15kHz), determining the cutoff point for high frequencies.
- 14. **Output:** Adjusts the final signal level after all processing, ensuring the overall level is appropriate when reintroduced into the signal chain.
- 15. **SC Filter:** Enables a filter on the sidechain input, allowing certain frequencies to be excluded from triggering the compression.
 - a. For Low Band Switches between OFF/60Hz/90Hz/150Hz.
 - b. For High Band Switches between OFF/3kHz/6kHz/9kHz.
- 16. **Threshold:** Sets the level at which the compression or expansion effect engages, allowing fine control over dynamic range management. Setting the Threshold to its maximum value will effectively disable compression or expansion entirely.
- 17. Band Bypass: Allows to engage/disable bypass for a specific band.
- 18. **Band Solo:** Solos the selected frequency band, isolating it so the user can focus on its specific adjustments.
- 19. **GR Meter:** Displays the amount of gain reduction applied to the signal, offering visual feedback on compression activity.
- 20. THD: Toggles harmonic distortion levels OFF/MED/HIGH.
- 21. **Band Output:** Adjusts the output level of the specific frequency band, balancing the signal after compression.

- 22. **Ratio:** Sets the amount of compression applied once the signal exceeds the threshold, determining how much the input signal is reduced. Switches between 1.5/2/4/10.
- 23. **Attack:** Defines how quickly the compressor responds to signals exceeding the threshold, affecting how tightly the effect grabs transients.
- 24. **Release:** Controls how fast the processor releases gain reduction once the input signal falls below the threshold, affecting the smoothness or punchiness of the compression.
- 25. **Toggle Connection Button:** This button toggles the connection status ON/OFF. It functions only when a connection ID has been selected using the "Select Connection Button."
- 26. **The Select Connection Button** within the _PANDORA plug-in serves as a gateway to establishing and managing connections with devices that support the GCon protocol. This feature simplifies the process of identifying and selecting the hardware unit to be controlled, providing a user-friendly interface for seamless integration between the plug-in and physical devices.

Upon Initiating Connection, It Visualizes the Connection State as Follows:

- **USB:** This label signifies a connection established through USB, offering a direct link between the hardware unit and the workstation.
- **SLOT:** This label indicates that the unit is connected through a _TITAN chassis.
- **Connection ID:** The unique identifier for the connected hardware unit is displayed, allowing for easy recognition and management of multiple devices. Accompanying this ID, the connection status is visually indicated to inform the user of the current state:
 - 1. **ON:** A solid white font denotes a successful connection, indicating that communication between the plug-in and the hardware unit is active.
 - 2. **OFF:** A solid gray font signifies that the connection is not established, alerting the user to a disconnect or other issue preventing communication.
 - 3. **Connecting:** A gray italic font is used to represent the process of establishing a connection. If this state persists for an extended period (more than 5 seconds) without successful connection, it suggests a potential issue requiring troubleshooting or support consultation
- 27. Copy: Enables users to copy the current parameter state.
- 28. Paste: Enables users to paste the current parameter state, facilitating quick duplication of settings.
- 29. **Config Bank:** Selects between configuration banks, each containing three configurations. This feature supports automation for changing unit settings within a session or a song.
- 30. Fast Preset Change (A/B/C): Quickly toggles between configs A/B/C without affecting connectionrelated parameters like the Connection ID.
- 31. **Resize:** Adjusts the display size or layout of the interface.

7 Other Functions

7.1 Memories

In terms of parameter storage:

- The _PANDORA unit offers **TWO** distinct quick-access presets, selectable via the A/B buttons.
- In contrast, the _PANDORA plugin supports saving an **UNLIMITED** number of configurations. Each preset within the plugin provides three rapid configuration changes, labeled A/B/C per bank ID.

7.1.1 Synchronization Upon Connection

When a new plugin instance is loaded into your DAW, it starts with default settings and no modified parameters. Upon establishing a connection to the hardware unit by setting the Connection ID, the plugin downloads the current parameter state from the hardware, including any available fast configuration presets. For example, if the connection between the _PANDORA plugin and the _PANDORA hardware is made while the plugin is in its default state, all parameter states, including A and B presets, will be downloaded to the plugin.

7.1.2 Preset Banks Feature

The Preset Bank feature allows you to configure different parameter states and enables additional parameter configurations (A/B/C) for flexible use. Having multiple memory banks can be particularly beneficial when mixing multiple songs within the same session. The Memory Bank parameter can be automated in the DAW, helping to maintain different settings across various sections of a session or between different songs within a single session. This feature is especially useful during the mastering phase, where multiple songs are often processed in one session.



7.2 Metering

The _PANDORA unit features an analog Gain Reduction (GR) meter that provides real-time visual feedback on the amount of compression being applied. This meter is essential for monitoring the dynamics of your signal, allowing you to see how much gain reduction is occurring as you adjust the compressor's settings. The meter is highly accurate, ensuring precise adjustments for achieving the desired compression effect.

Additionally, _PANDORA includes a GR meter both on the plugin interface (marked as 1 in the image) and on the physical front panel. The plugin interface also features a VU Input meter (marked as 2 in the image), providing consistent visual feedback.



8 Hookup Diagrams

Below chapter shows possible hookup of the WesAudio devices and audio interface.

8.1 Hookup Diagram - Analog Cables With _TITAN



(*) Please note that the _TITAN Ethernet connection does not require a direct connection to a PC or Mac. You can also connect the _TITAN directly to a router, allowing you to access and control all units within the _TITAN via your local network.

8.2 Hookup Diagram - _CALYPSO and _TITAN



(*) Please note that the _TITAN Ethernet connection does not require a direct connection to a PC or Mac. You can also connect the _TITAN directly to a router and use your local network to access and control all units within the _TITAN.

8.3 Hookup Diagram – 500 Series Chassis



8.4 Other examples

Please note that all WesAudio units, despite their digital recall and control capabilities, remain fully analog and can be utilized at any stage of the production process, including recording and post-processing. For instance, like any other units, WesAudio modules can be seamlessly integrated during tracking.

9 Troubleshooting

If you encounter any of the following issues:

- No Sound Output or Signal Loss
- Unexpected Distortion
- Thumping or Low-End Artifacts
- Inconsistent Compression
- No Response to DAW Automation
- Excessive Heat

Please visit the WesAudio FAQ site <u>https://wesaudio.com/faq/</u> for detailed troubleshooting steps and solutions.

10 Abbreviations and Terms

GCon is a high-speed communication protocol developed to enable complete management and recall of analog devices. It's important to note that GCon is solely focused on device control and management; it does not facilitate the transfer of audio signals. This protocol is instrumental in bridging the gap between analog warmth and digital convenience, allowing users to enjoy the best of both worlds without compromising on sound quality or control flexibility.

NG500 represents the next generation in the 500 series format, offering advancements in technology and integration capabilities for audio processing hardware. This evolution maintains compatibility with existing standards while introducing improvements in power, connectivity, and digital control.

The NG500 connector is a specialized extension of the standard 500 series connector, incorporating additional pins to support enhanced features. These include digital control signals facilitated by the GCon protocol, power management improvements, and potentially other functionalities that exceed the capabilities of the traditional 500 series format. This connector ensures that NG500 series modules can leverage advanced digital control and management while maintaining the character and quality of analog audio processing.

11 Warranty

WesAudio is committed to delivering products of the highest quality, designed for durable and reliable performance over many years, assuming proper care, usage, transport, and storage. Our products come with a two-year warranty covering defects in parts and workmanship from the original date of purchase. This warranty is extendable to any future owner within the warranty period, ensuring uninterrupted coverage.

Warranty Coverage:

- The warranty is valid for two years from the date of the original purchase.
- It is transferable to any subsequent owner within this period.

Exclusions:

- The warranty does not cover normal wear and tear.
- It excludes damages due to misuse, negligence by the customer, accidental impacts, unauthorized modifications or repairs, cosmetic issues, and damages from shipping.

Warranty Service:

- Should a product exhibit defect in parts or workmanship during the warranty period, WesAudio will, at its discretion, repair or replace the defective components at no charge, assuming the customer provides valid proof of purchase.
- The product must retain its original factory serial number to be eligible.
- Customers are responsible for shipping costs to WesAudio for warranty service. WesAudio will cover the return ground shipping costs.

This comprehensive warranty underscores our dedication to quality and customer satisfaction, ensuring your WesAudio products perform flawlessly for years to come.