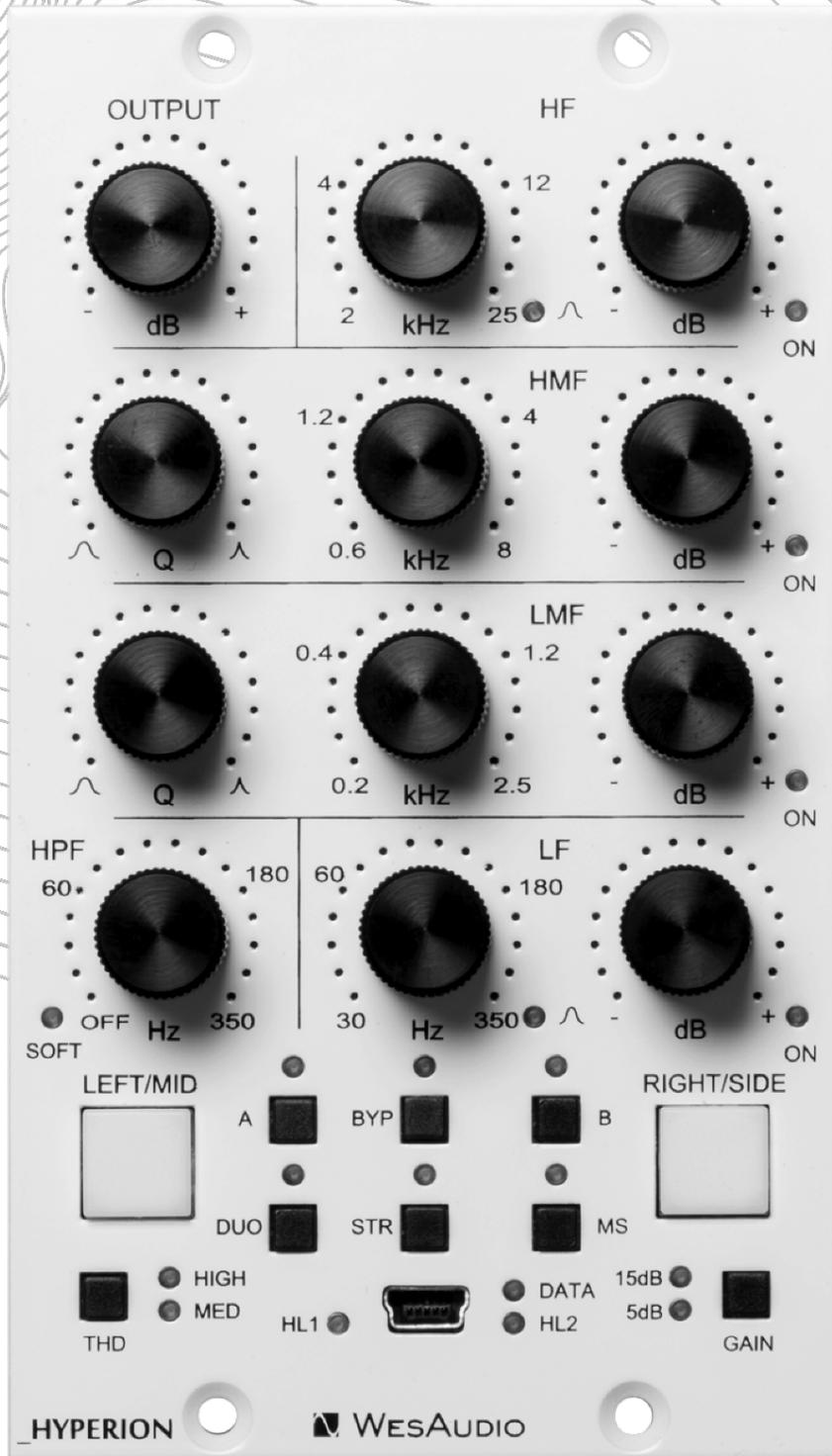


# Analog Sound Digital Recall



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



# **\_HYPERION**

User Manual

EN

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Thank You for the purchase of **\_HYPERION**

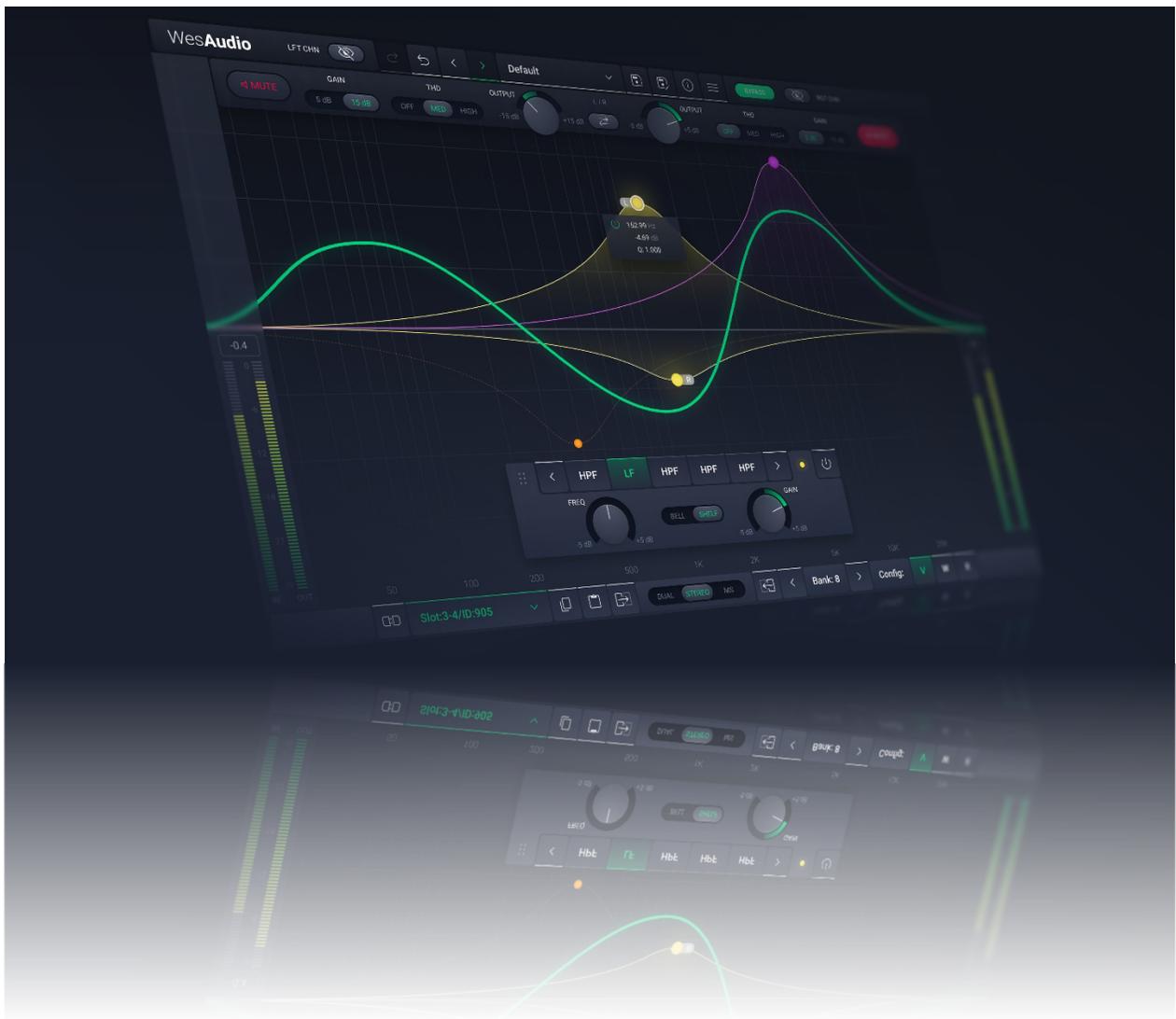
**Fully analog parametric EQ with digital recall.**

With kind regards

Radoslaw Wesolowski and Michal Weglicki

# Fully Analog Parametric EQ With Digital Recall

\_HYPERION presents a fully analog parametric EQ boasting a substantial +24dBu headroom. Setting it apart are groundbreaking enhancements unparalleled in other processors. Its unique design employs 15 VCAs per channel, ensuring practically silent parameter adjustments and an incredibly musical output. \_HYPERION proudly continues the NG500 line, incorporating total recall through the front panel USB socket or \_TITAN chassis.



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# 1 Overview

\_HYPERION functions as a completely analog device, utilizing analog components for all audio processing tasks. However, it integrates digital control for the management of device settings. This combination allows for the digital recall of settings and enables remote control capabilities, blending the best of analog sound quality with the convenience of digital functionality.

## 2 Main Features

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

- **Analog Core with Digital Mastery:** Experience the warmth and richness of a fully analog parametric EQ, augmented with the precision of digital control for seamless parameter adjustments.
- **Exceptional Headroom:** Boasts a generous +24dBu of headroom, accommodating the most dynamic of audio sources without compromise.
- **Versatile Operation Modes:** Easily switch between Stereo, Dual Mono, and Mid/Side modes to suit any mixing or mastering scenario.
- **Comprehensive Frequency Sculpting:** Four bands of EQ, each with selectable gain ranges of  $\pm 5\text{dB}$  or  $\pm 15\text{dB}$ , offer extensive sculpting capabilities:
  - **High Band:** Sweepable from 2kHz to 25kHz, available in both bell and shelf shapes for airy highs or precise treble adjustments.
  - **High-Mid Band:** Ranging from 600Hz to 8kHz with full Q control, perfect for shaping vocals, guitars, and other midrange elements.
  - **Low-Mid Band:** Covers 200Hz to 2.5kHz, also with full Q control, allowing detailed manipulation of fundamental and harmonic content.
  - **Low Band:** Extends from 30Hz to 350Hz, in bell or shelf modes, for powerful bass adjustments or subtle low-end shaping.
- **High-Precision Filters:** High-pass filtering with selectable 12dB/Oct or 6dB/Oct slopes for clean low-end management.
- **Individual Band Bypass:** Each EQ band includes a dedicated bypass switch, enabling focused processing without altering unaffected frequencies.
- **Transparent Adjustments:** Guarantees virtually noiseless parameter changes, preserving the integrity of your audio.
- **Unique THD Circuit:** Proprietary Total Harmonic Distortion (THD) implementation adds harmonic richness and warmth on demand.

- **Seamless Integration:** Offers flexible control via DAW or live plug-in interfaces, ensuring instant recall of settings for streamlined workflow.
- **Interactive Control:** Twelve touch-sensitive encoders allow for real-time recording of automation, capturing every nuance of your mix.
- **Uncompromised Signal Path:** True bypass functionality ensures a pristine signal path when the unit is disengaged.
- **Advanced Metering:** Features comprehensive input and output metering, complete with clip detection to safeguard your signal's integrity.
- **Creative Flexibility:** A/B comparison feature facilitates critical listening and decision-making by easily toggling between settings.

## 3 Hardware

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

### 3.1 Specification

<b>Frequency response</b>	<b>10Hz-150kHz (-2dB)</b>
<b>THD+N all bands gain "0"</b>	0.03% (1kHz,0dBu)
<b>THD+N +15dB band boost</b>	<0.15% (1kHz,0dBu)
<b>Input impedance</b>	10kohm
<b>Output impedance</b>	< 100ohm
<b>Max signal level</b>	+24dBu
<b>Crosstalk</b>	< -100dB
<b>THD (MID switch)</b>	1%
<b>THD (HIGH switch)</b>	2.5%
<b>Power consumption</b>	150mA per rail
<b>Unit dimensions</b>	76x133x158 mm
<b>Box dimensions</b>	105x162x234 mm
<b>Unit weight</b>	0,7 kg
<b>Box weight</b>	0.9 kg
<b>Warranty</b>	2 years

The unit must warm up for approximately 5 minutes before use. Temperature changes can impact internal variables, affecting frequencies and slightly altering gain and Q settings.

Each band offers configurable gain modes that also affect the OUTPUT control:

- 15dB boost or cut in 0.25 dB steps,
- 5dB boost or cut in 0.083 dB steps,

Frequencies for each control are set in a predefined number of steps within a logarithmic scale:

- HF frequency – 256 steps,
- HMF frequency – 256 steps,
- LMF frequency – 256 steps,
- LF frequency – 200 steps,
- HPF frequency – 128 steps.

## 3.2 Installation and Compatibility

WesAudio \_HYPERION equalizer module is intended for installation in:

- An API™ 500 Series compatible rack
- \_TITAN or any other ng500 compatible chassis,

WesAudio's \_HYPERION 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!

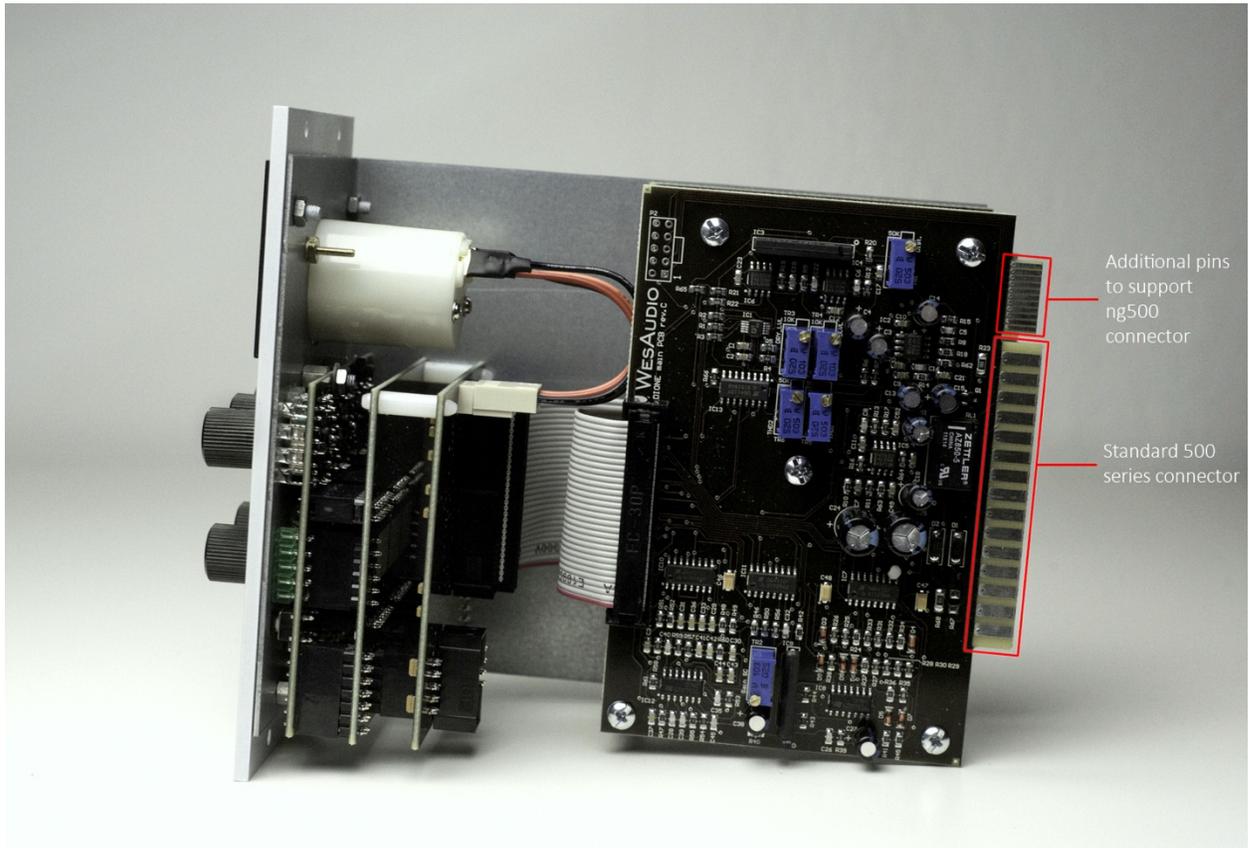
### **Module installation walkthrough:**

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!**

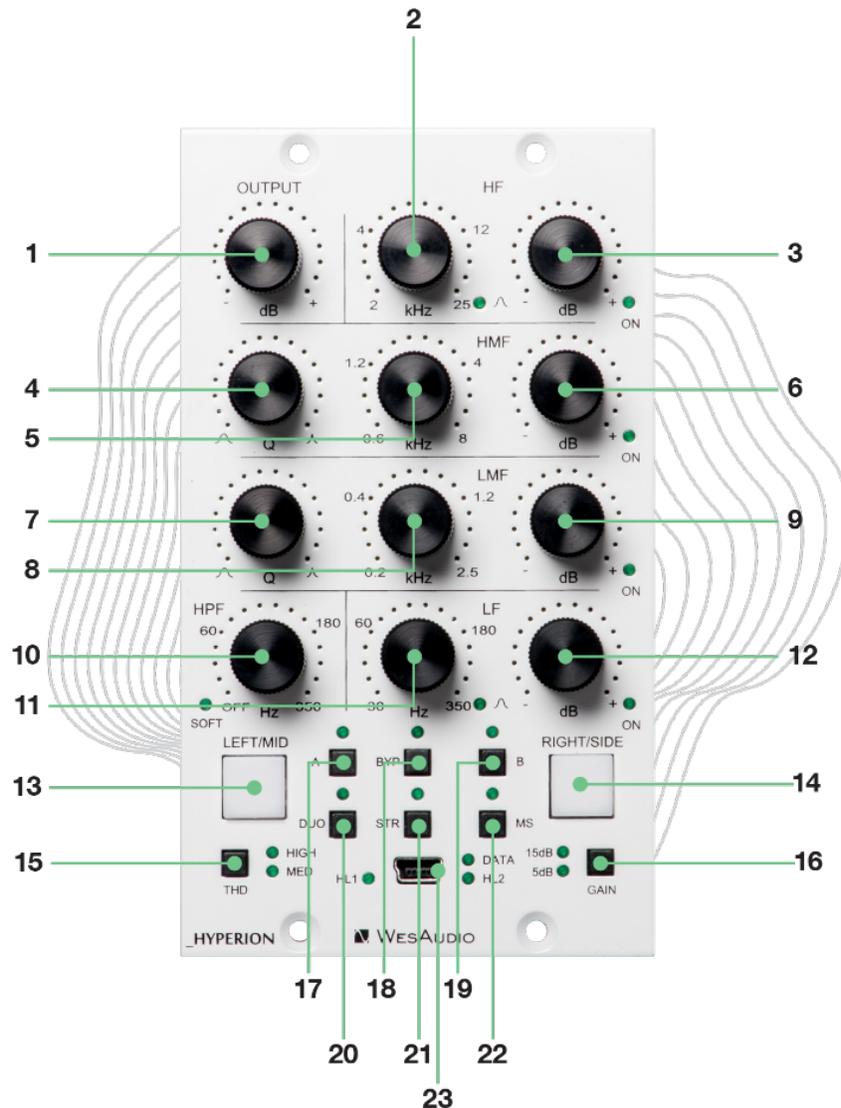
**500 series compatibility note:**

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: <https://wesaudio.com/ng500/>.

### 3.3 Front Panel and Main Functions



- 1) **OUTPUT** – Controls the output level.
- 2) **HF Frequency** – Adjusts the high filter frequency.
- 3) **HF Gain** – Controls the gain of the high filter. Push to enable or disable this band section.
- 4) **HMF Q** – Manages the bandwidth (Q) of the high-mid filter.
- 5) **HMF Frequency** – Adjusts the frequency of the high-mid filter.
- 6) **HMF Gain** – Controls the gain of the high-mid filter. Push to enable or disable this band section.
- 7) **LMF Q** – Manages the bandwidth (Q) of the low-mid filter.
- 8) **LMF Frequency** – Adjusts the frequency of the low-mid filter.
- 9) **LMF Gain** – Controls the gain of the low-mid filter. Push to enable or disable this band section.
- 10) **HPF Frequency** – Adjusts the high-pass filter frequency. Push the encoder to toggle between 6 dB/Oct and 12 dB/Oct. Double press to enable or disable the filter.

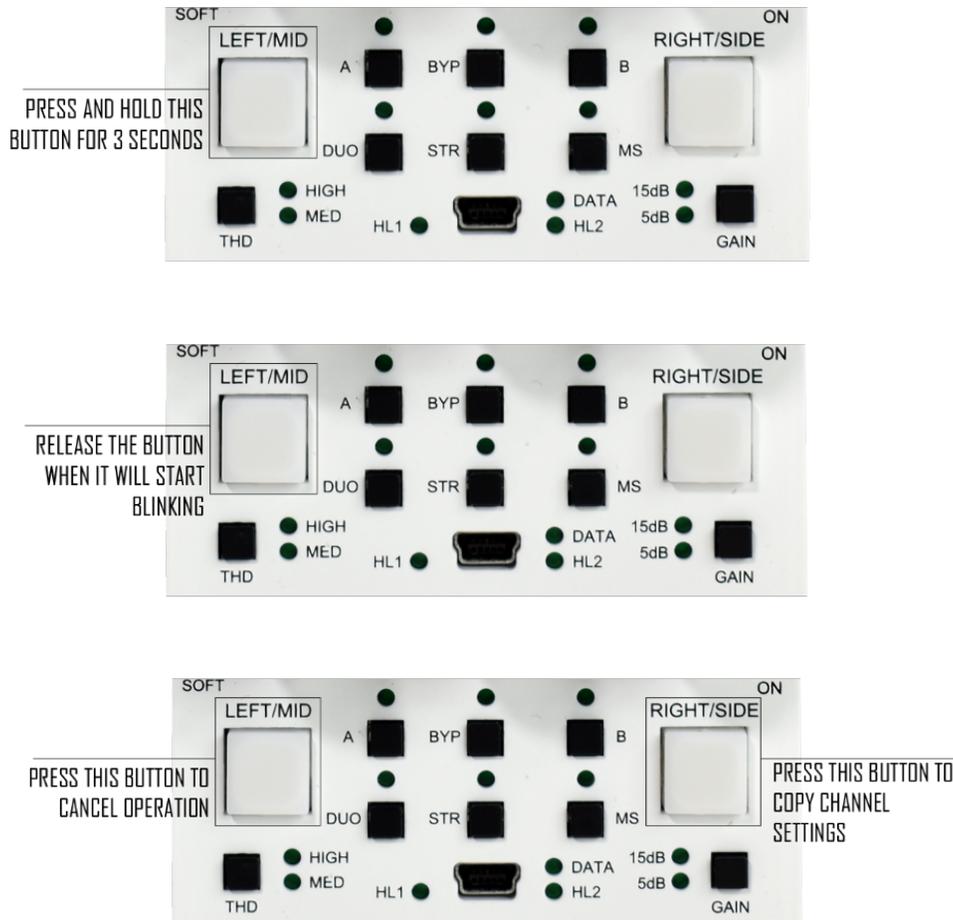
- 11) **LF Frequency** – Adjusts the low filter frequency.
- 12) **LF Gain** – Controls the gain of the low filter. Push to enable or disable this band section.
- 13) **LEFT/MID** channel button:
  - a. Displays the LEFT/MID channel on the front panel.
  - b. Illuminates red when clipping is detected.
  - c. Double press to enable or disable the MUTE function.
  - d. If it blinks red continuously, it indicates that the MUTE function is engaged.
- 14) **RIGHT/SIDE** channel button:
  - a. Displays the RIGHT/SIDE channel on the front panel.
  - b. Illuminates red when clipping is detected.
  - c. Double press to enable or disable the MUTE function.
  - d. If it blinks red continuously, it indicates that the MUTE function is engaged.
- 15) **THD** – Toggles THD levels between OFF (LEDs disabled), MED, and HIGH.
- 16) **GAIN mode** – Sets the unit's gain mode affecting all band gain controls range:
  - a. 15dB for cut and boost, with 0.25 dB change on each step,
  - b. 5dB for cut and boost, with 0.083 dB change on each step.
- 17) **A** – Enables fast preset change to preset "A".
- 18) **Bypass** – Bypass Switch.
- 19) **B** – Enables fast preset change to preset "B".
- 20) **DUO** – Enables dual mono mode.
- 21) **STR** – Enables stereo mode.
- 22) **MS** – Enables mid/side mode.
- 23) **USB socket** - Module control USB port.

## 3.4 Front Panel – Special Functions

\_HYPERION front panel includes features for easier use when the unit operates independently, without a connected plug-in.

### Copy Channels

To replicate the settings from the LEFT/MID channel to the RIGHT/SIDE channel, follow these steps.



### Copy presets (A/B)

To duplicate presets A or B, just use the steps mentioned earlier for copying channels.

### Mute

To engage the MUTE function on a channel, press the LEFT/MID or RIGHT/SIDE button twice (double press).

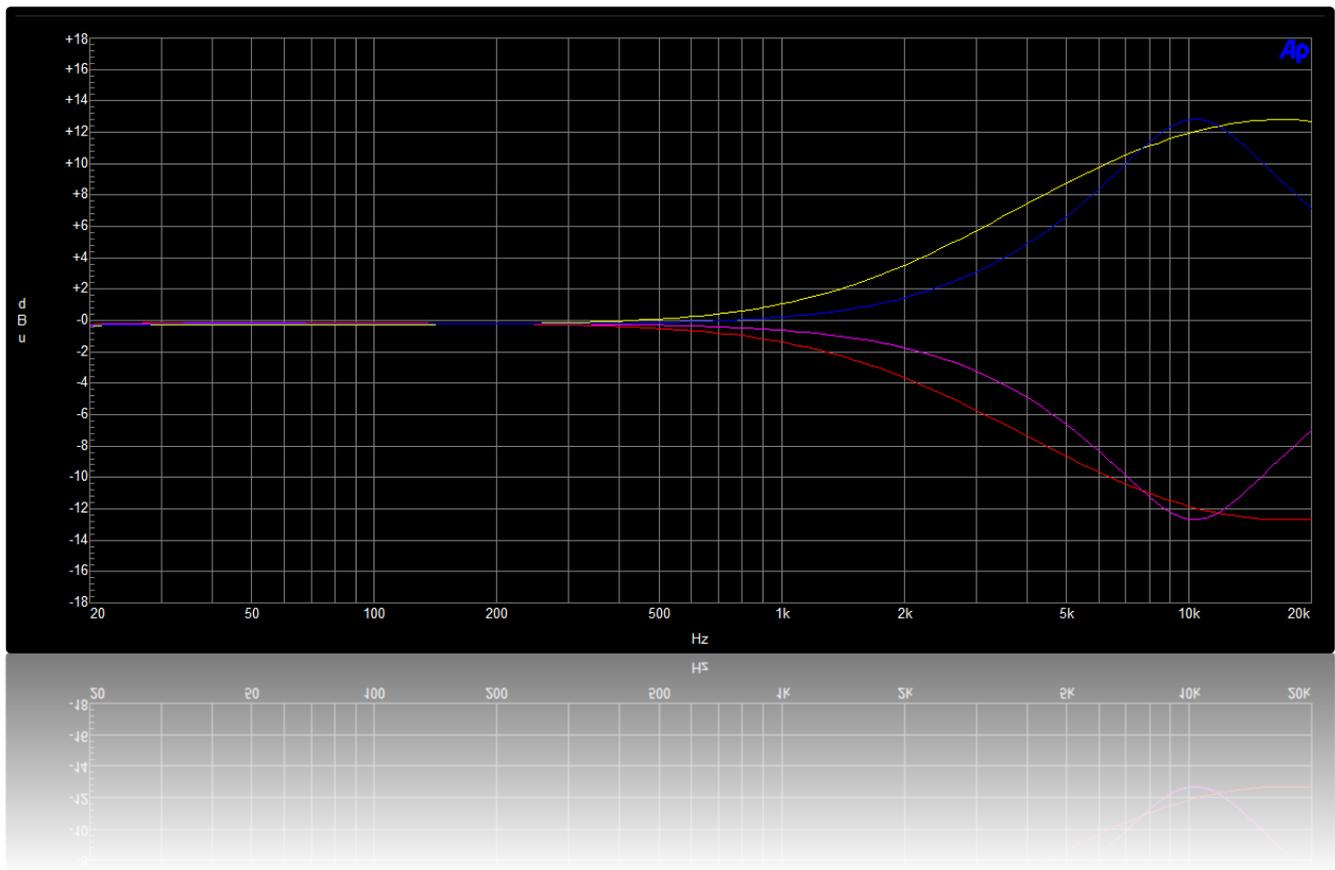
## 4 Analog Processing

This chapter in depth describes the analog nature of \_HYPERION.

### 4.1 Curves

This chapter presents all basic band configurations.

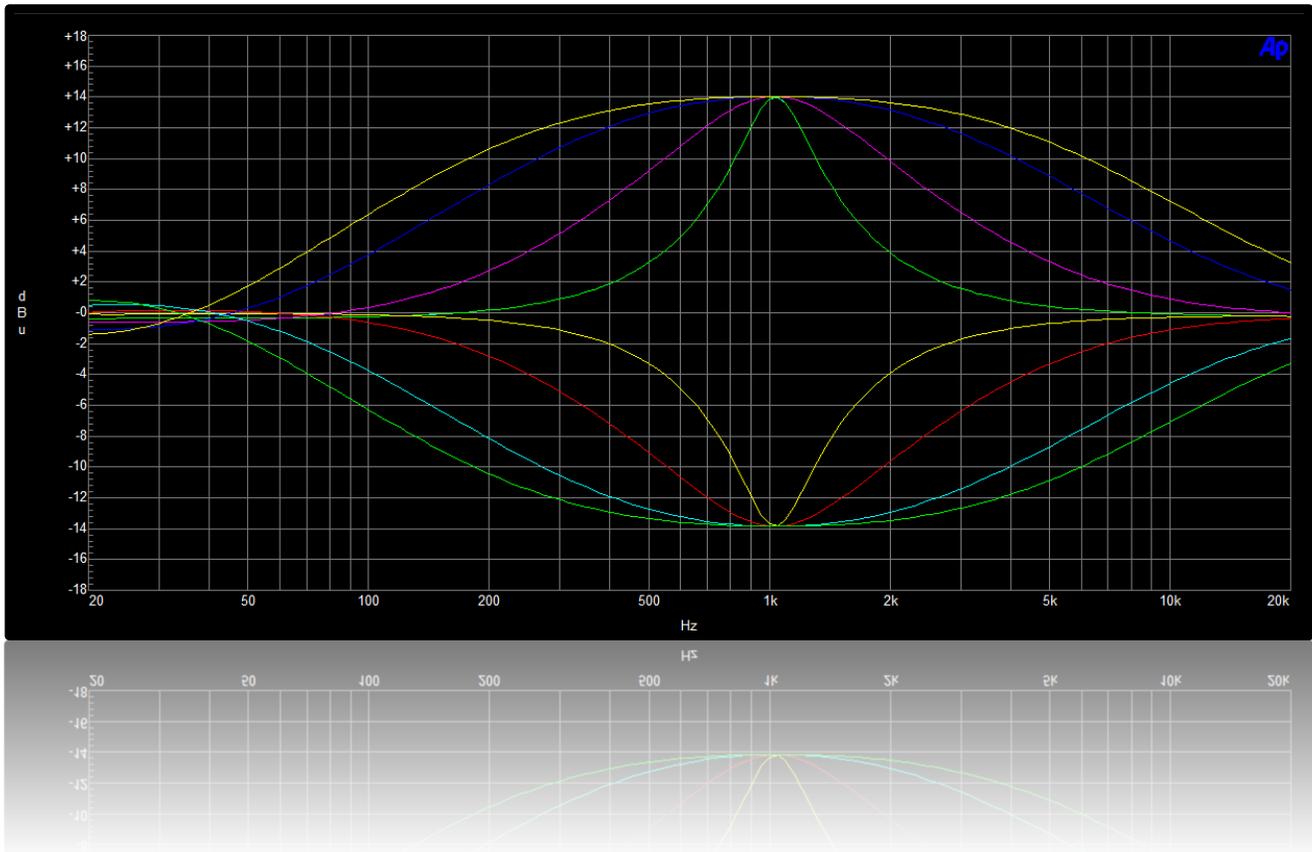
#### 4.1.1 HF - High Filter



- 1) **YELLOW** – Frequency 10kHz, +15dB boost, **Shelf mode**.
- 2) **RED** – Frequency 10kHz, -15dB cut, **Shelf mode**.
- 3) **MAGENTA** – Frequency 10kHz, -15dB cut, **Bell mode**.
- 4) **BLUE** – Frequency 10kHz, +15dB boost, **Bell mode**.

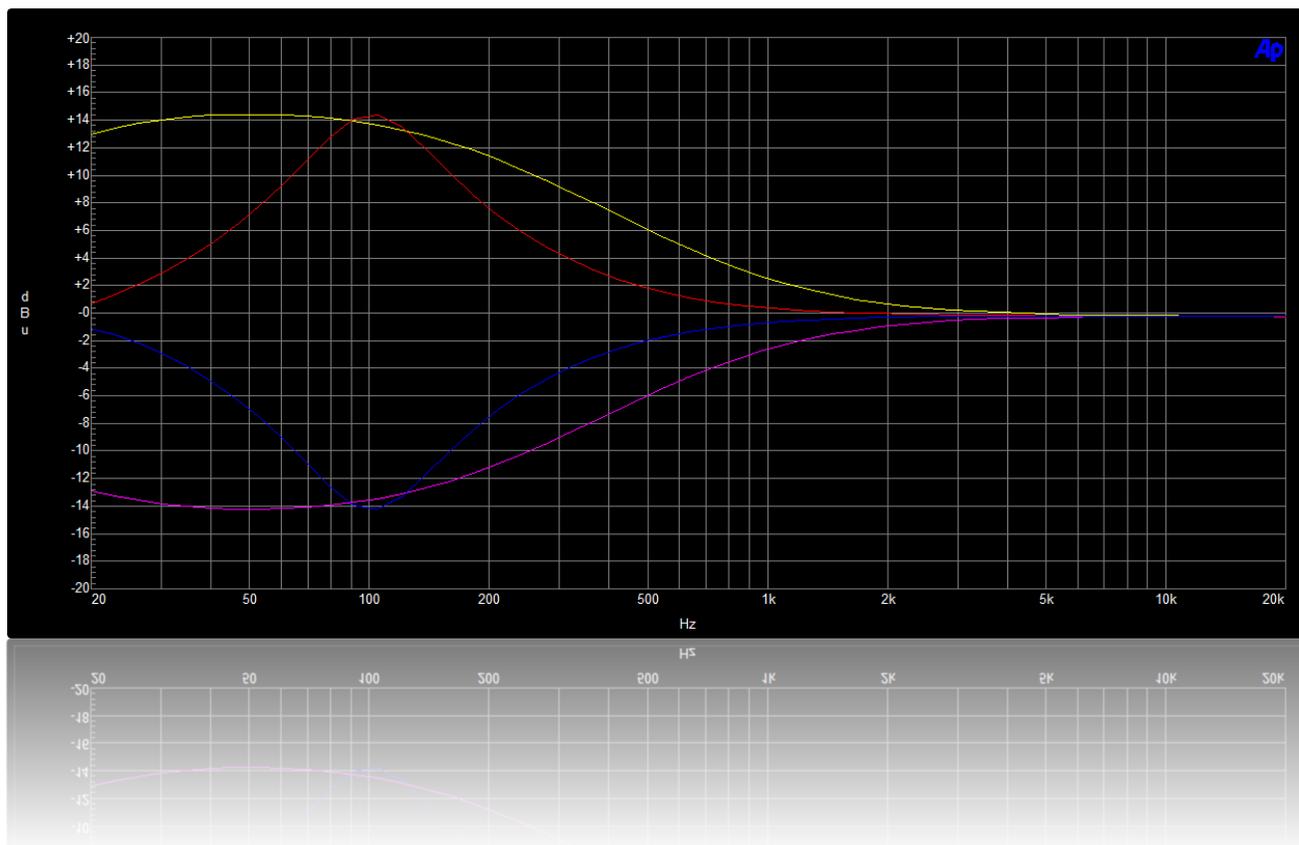
## 4.1.2 HMF & LMF - High-Mid Filter & Low-Mid Filter

HMF and LMF filters are very similar, however exist in different frequency ranges.



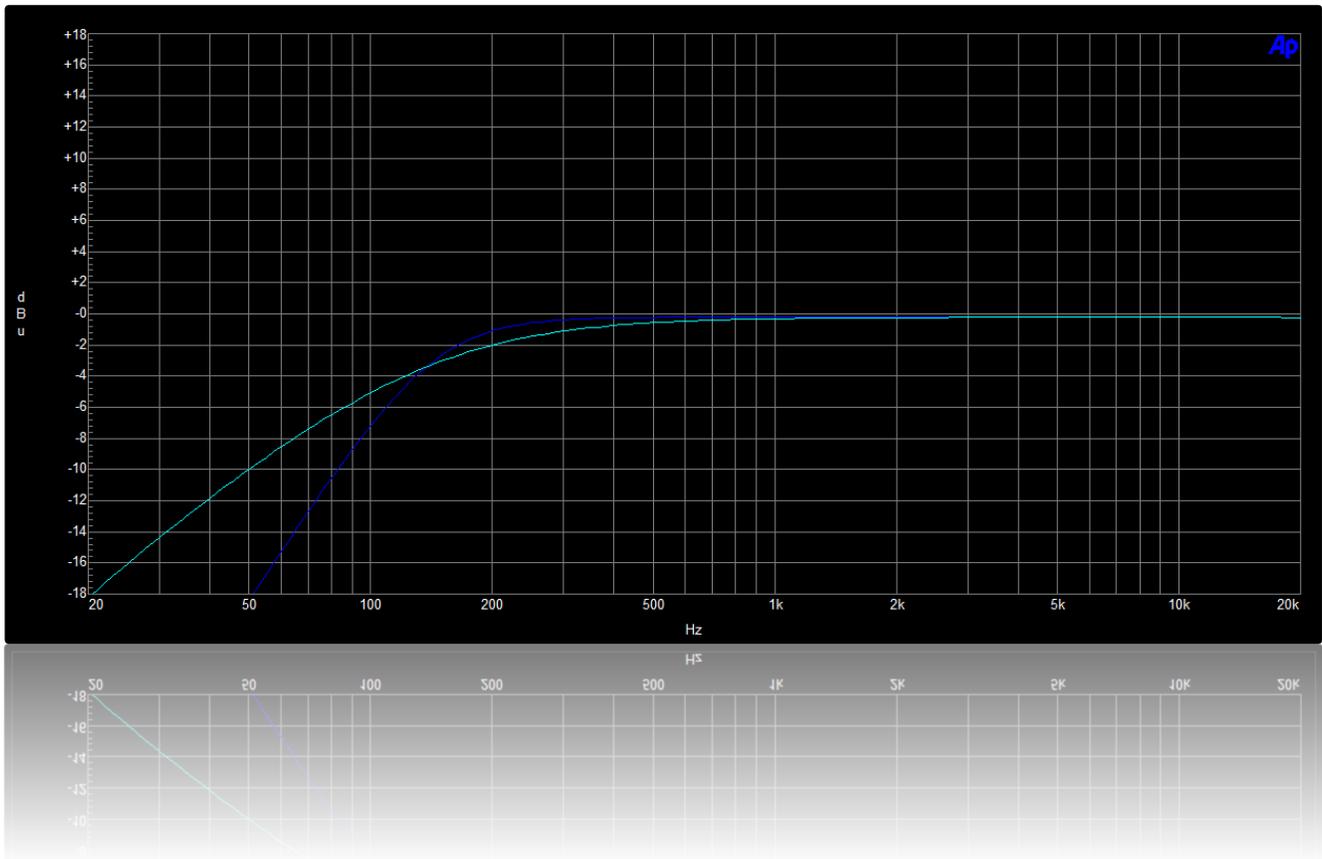
This graph presents different Q values and Gain values for 1kHz frequency. Each curve is done either for +15dB boost or -15dB cut. Widest Q value is equal 0.2 and narrowest 3.2.

### 4.1.3 LF - Low Filter



- 1) **YELLOW** – Frequency 100Hz, +15dB boost, **Shelf mode**.
- 2) **RED** – Frequency 100Hz, +15dB boost, **Bell mode**.
- 3) **MAGENTA** – Frequency 100Hz, -15dB cut, **Shelf mode**.
- 4) **BLUE** – Frequency 100Hz, -15dB cut, **Bell mode**.

## 4.1.4 HPF - High Pass Filter



- 1) **BLUE** – Frequency 150Hz, 12dB/Oct (Normal mode).
- 2) **CYAN** - Frequency 150Hz, 6dB/Oct (Soft mode).

## 4.2 HPF engage/disengage

Starting with GCon release 10, you can engage or disengage the High Pass Filter directly from the front panel. To do this, simply double press the HPF encoder. When the High Pass Filter is bypassed, the LED ring around the HPF will blink, indicating its status.

## 4.3 Mute

Starting with GCon release 7.4, a Mute function was introduced. This feature allows you to significantly lower the volume of one channel, making it particularly useful for Mid-Side processing. Please note that since this feature was added via a firmware update, it does not completely mute the signal but reduces it to a barely audible level, which is ideal for certain mixing purposes.

## 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>.

<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 <http://www.wesaudio.com/download> 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

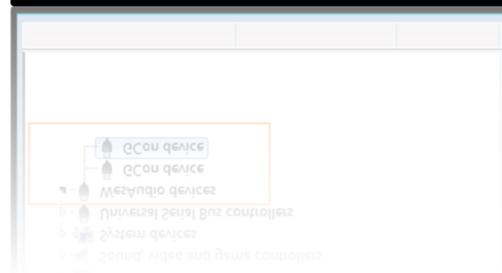
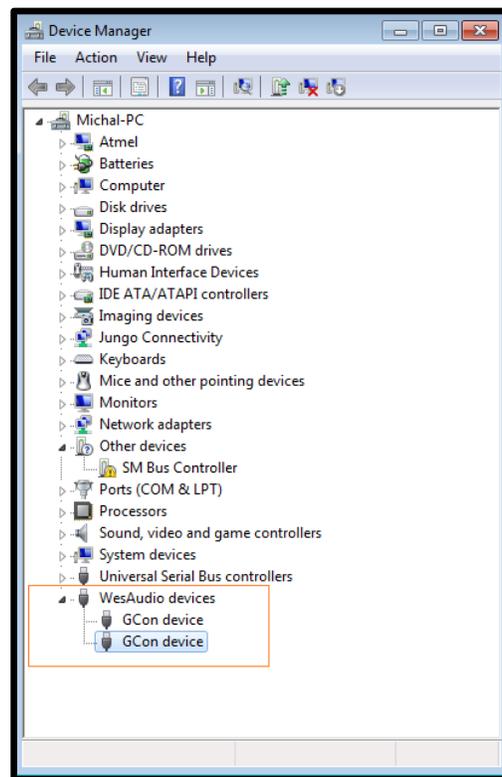
Due to the simpler nature of OSX architecture and its handling of USB devices, the primary consideration is to ensure all devices are connected before beginning the installation process. Once you initiate the installer application, you might encounter system warnings regarding the installer. In such 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](mailto: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:

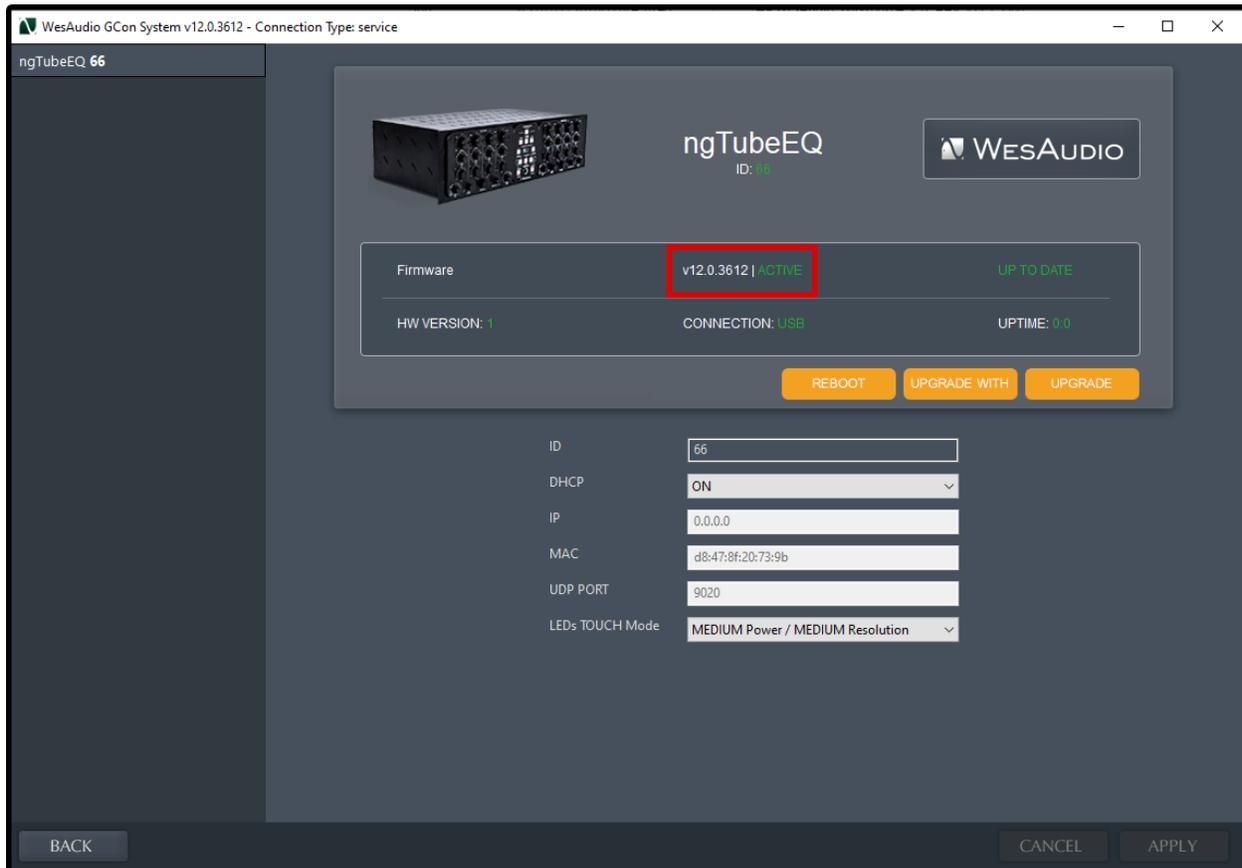
- **For OSX:** Access it at “/Applications/WesAudio/GConManager.”
- **For WINDOWS:** Find it in the folder chosen during the installation phase, typically “c:/Program Files x86/WesAudio/GConManager.exe” by default.

### 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).

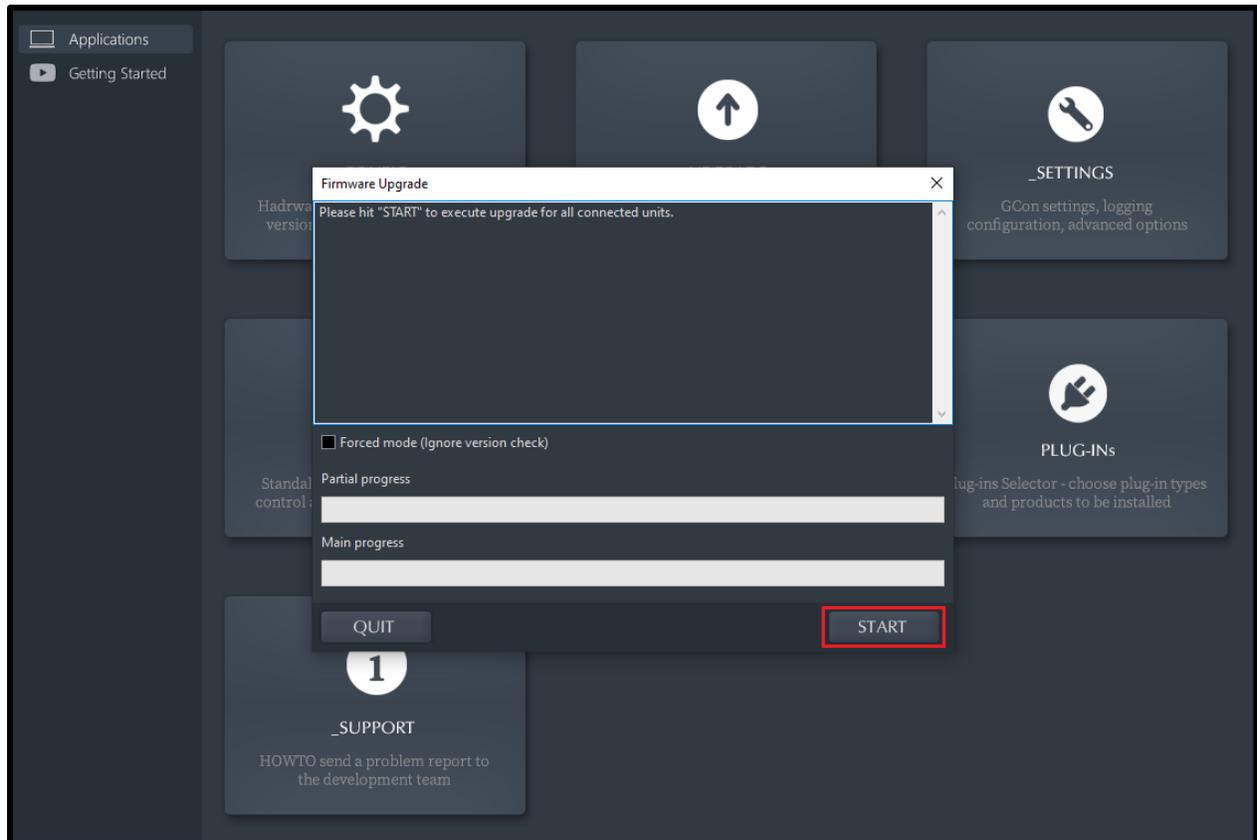
## 5.3 How To Check Firmware Version

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.



## 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.



## 6 Digital Control / Recall

This chapter delves into the comprehensive options available for managing \_HYPERION and automating its settings. The cornerstone of \_HYPERION'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 \_HYPERION 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 \_HYPERION features from the workstation, a boon for those with spatial constraints or other limitations preventing direct access to their hardware.

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

## 6.1 DAW Plug-in

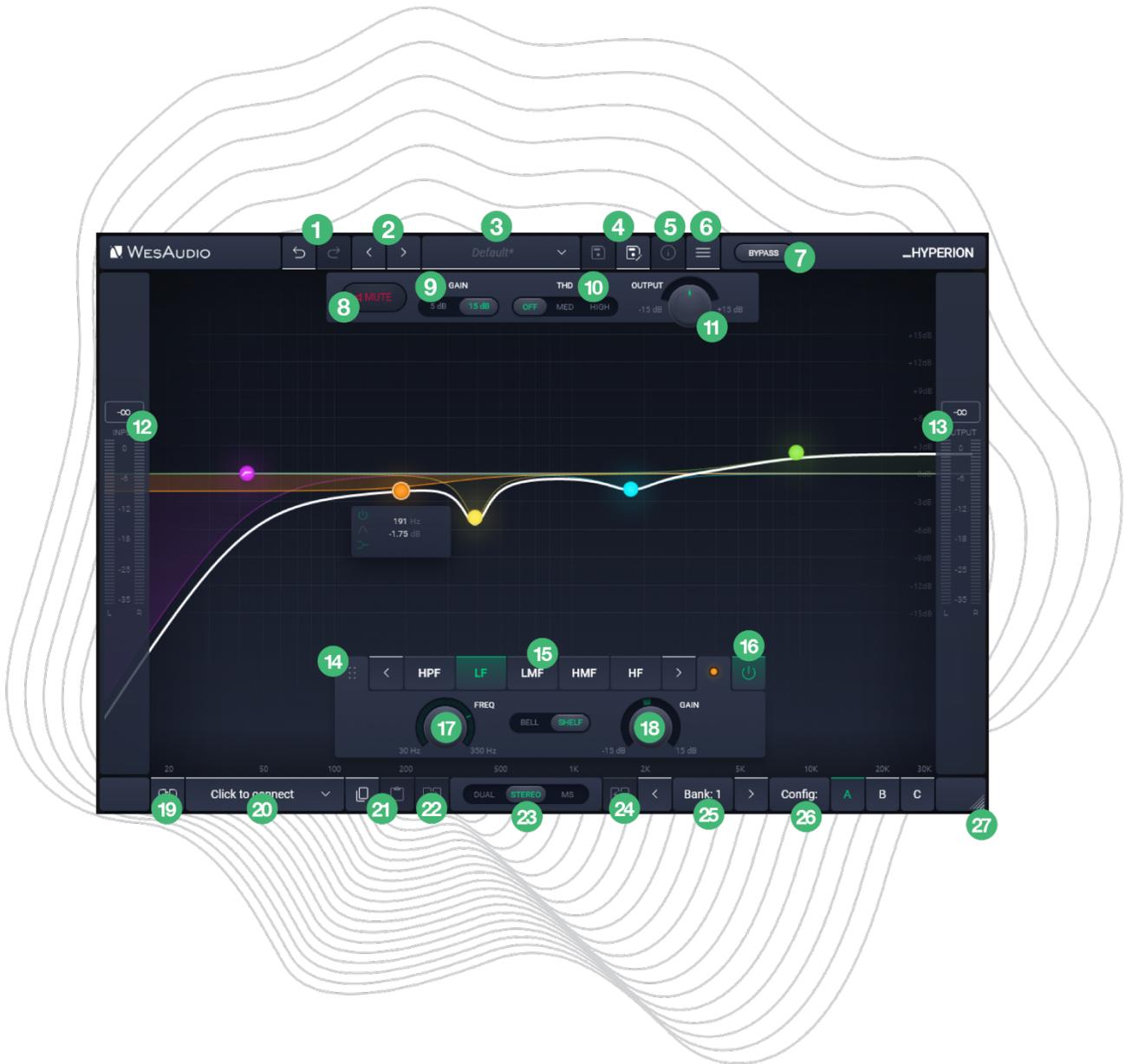
The \_HYPERION plug-in extends comprehensive control over all parameters of the unit, ensuring seamless integration into any digital audio workstation (DAW) environment. Designed to be versatile and accessible, it supports all common plug-in standards, including VST2, VST3, AU (Audio Units), and AAX,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



The \_HYPERION offers versatility through two types of plug-ins to accommodate various production needs:

- **Stereo Plug-in:** This variant provides comprehensive control over both channels of the hardware unit, enabling a wide range of operational modes including dual mono, stereo, and mid/side processing. It's ideal for cohesive processing of stereo tracks or linked dual mono operations, allowing for intricate spatial and tonal adjustments.
- **Mono Plug-in:** Designed for singular channel use, the mono plug-in connects to only one channel of the hardware unit, though two instances of the plug-in can be used concurrently with a single \_HYPERION for true dual mono operation. This setup is perfect for treating separate mono sources independently—such as processing a kick drum on one channel and a snare drum on the other. In this configuration, each channel of the hardware operates as an independent mono unit, providing flexibility for targeted processing on individual tracks.

## 6.1.1 Stereo Plug-in - Stereo Mode



In Stereo mode, the Stereo plug-in shares the same controls as in Dual and MS modes. The key difference is that Stereo mode consolidates the interface to display only one channel. This visible channel functions as the master, automatically synchronizing both hardware channels to the same settings.

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 \_HYPERION, whether you're adjusting parameters on the physical unit or via the plug-in.

#### 1. UNDO/REDO

- **Undo:** The Undo feature in the \_HYPERION 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.
- **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.

#### 2. NEXT/PREVIOUS Preset:

- **Previous Preset:** Loads the previous preset from preset database.
- **Next Preset:** Loads the next preset from preset database.

#### 3. Preset Selector: Allows for the selection, viewing, and deletion of presets.

#### 4. SAVE/SAVE AS:

- **Preset Save:** Saves currently selected presets.
- **Preset Save As:** Facilitates saving current settings as a preset providing name and preset details.

#### 5. Preset Info: Displays details of the currently loaded preset.

#### 6. 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.

#### 7. Bypass: Allows to engage/disable bypass on the hardware unit.

#### 8. Mute: The Mute function in the \_HYPERION plug-in allows users to enable or disable the mute feature for individual channels. This control provides a straightforward way to temporarily silence a channel without altering any of its settings, facilitating quick comparisons or isolations in the mix.

#### 9. Gain Mode: 5dB or 15dB mode selector.

#### 10. THD: Toggles harmonic distortion levels OFF/MED/HIGH.

#### 11. Output Level: Adjusts the output signal level between -15dB and +15dB in 0.25dB step.

#### 12. Input Meter: The Input Meter visually represents the input levels for both hardware channels, utilizing an analog scale that ranges from 0dBu to 26dBu. This feature provides users with an intuitive and accurate way to monitor signal strength entering the \_HYPERION, ensuring levels are kept within an optimal range for the best possible sound quality.

#### 13. Output Meter: The Output Meter visually represents the output levels for both hardware channels, utilizing an analog scale that ranges from 0dBu to 26dBu. This feature provides users with an intuitive and accurate way to monitor signal strength leaving the \_HYPERION, ensuring levels are kept within an optimal range for the best possible sound quality.

#### 14. Panel position: To adjust the panel's position, click, grab, and hold. Move the panel to the desired position.

#### 15. Band filters: Switch between HPF/LF/LMF/HMF/HF filters.

#### 16. Band ON/OFF: Activate or deactivate the frequency band.

#### 17. Frequency knob: Adjust the frequency for the selected band.

#### 18. Gain knob: Modify the gain value for the chosen band.

- 
19. **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."
20. **The Select Connection Button** within the \_HYPERION 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.
21. **Copy/Paste Settings:**
- **Copy:** Enables users to copy the current parameter state.
  - **Paste:** Enables users to paste the current parameter state, facilitating quick duplication of settings.
22. **Copy Left/Mid to Right/Side:** This feature enables quick duplication of settings from the left/mid channel to the right/side channel, simplifying the alignment of parameters between the two.
23. **Mode:** Sets units mode to be either DUAL, STEREO or Mid/Side.
24. **Copy Right/Side to Left/Mid:** This feature enables quick duplication of settings from the right/side channel to the left/mid channel, simplifying the alignment of parameters between the two.
25. **Config Bank:** Selects between configuration banks, each containing three configurations. This feature supports automation for changing unit settings within a session or a song.
26. **Fast Preset Change (A/B/C):** Quickly toggles between configs A/B/C without affecting connection-related parameters like the Connection ID.
27. **Resize:** Adjusts the display size or layout of the interface.

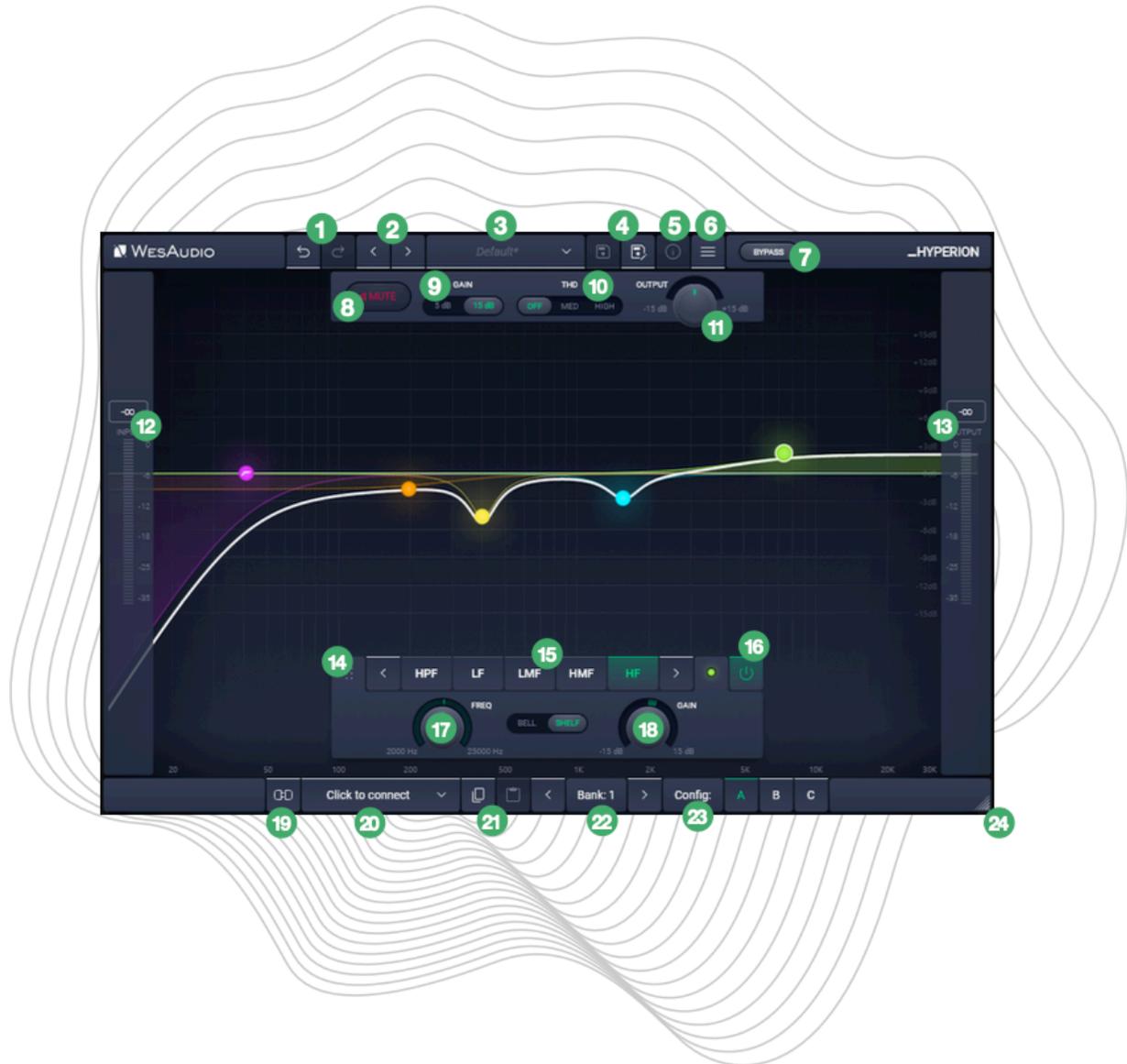
## 6.1.2 Stereo Plug-in - Dual and MS Modes

Dual and MS modes share the same underlying concept, with the key difference being that each channel can be independently adjusted to meet specific needs.



### 6.1.3 Mono Plug-in

Mono plug-ins offer the flexibility to connect and control each channel of the \_HYPERION independently, making them ideal for processing separate mono sources, such as a kick drum and snare. This capability allows for comprehensive control over the analog circuit, including the ability to switch between internal presets (A/B/C), tailored for individual channel enhancements.



The layout of the mono plug-in closely mirrors that of the hardware, maintaining the intuitive interface and design of the 2-channel stereo plug-in version. However, there's a notable difference: the unit mode buttons (DUAL / STEREO / MS) are absent in this configuration. This is because, in mono plug-in mode, the \_HYPERION automatically operates in DUAL unlinked mode, optimizing it for independent channel processing.

1. **UNDO/REDO**
  - **Undo:** The Undo feature in the \_HYPERION 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.
  - **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.
2. **NEXT/PREVIOUS Preset:**
  - **Previous Preset:** Loads the previous preset from preset database.
  - **Next Preset:** Loads the next preset from preset database.
3. **Preset Selector:** Allows for the selection, viewing, and deletion of presets.
4. **SAVE/SAVE AS:**
  - **Preset Save:** Saves currently selected presets.
  - **Preset Save As:** Facilitates saving current settings as a preset providing name and preset details.
5. **Preset Info:** Displays details of the currently loaded preset.
6. **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.
7. **Bypass:** Allows to engage/disable bypass on the hardware unit.
8. **Mute:** The Mute function in the \_HYPERION plug-in allows users to enable or disable the mute feature for individual channels. This control provides a straightforward way to temporarily silence a channel without altering any of its settings, facilitating quick comparisons or isolations in the mix.
9. **Gain Mode:** 5dB or 15dB mode selector.
10. **THD:** Toggles harmonic distortion levels OFF/MED/HIGH.
11. **Output Level:** Adjusts the output signal level between -15dB and +15dB in 0.25dB step.
12. **Input Meter:** The Input Meter visually represents the input levels for both hardware channels, utilizing an analog scale that ranges from 0dBu to 26dBu. This feature provides users with an intuitive and accurate way to monitor signal strength entering the \_HYPERION, ensuring levels are kept within an optimal range for the best possible sound quality.
13. **Output Meter:** The Output Meter visually represents the output levels for both hardware channels, utilizing an analog scale that ranges from 0dBu to 26dBu. This feature provides users with an intuitive and accurate way to monitor signal strength leaving the \_HYPERION, ensuring levels are kept within an optimal range for the best possible sound quality.
14. **Panel position:** To adjust the panel's position, click, grab, and hold. Move the panel to the desired position.
15. **Band filters:** Switch between HPF/LF/LMF/HMF/HF filters.
16. **Band ON/OFF:** Activate or deactivate the frequency band.
17. **Frequency knob:** Adjust the frequency for the selected band.
18. **Gain knob:** Modify the gain value for the chosen band.
19. **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."
20. **The Select Connection Button** within the \_HYPERION 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.

**21. Copy/Paste Settings:**

- **Copy:** Enables users to copy the current parameter state.
- **Paste:** Enables users to paste the current parameter state, facilitating quick duplication of settings.

**22. Config Bank:** Selects between configuration banks, each containing three configurations. This feature supports automation for changing unit settings within a session or a song.

**23. Fast Preset Change (A/B/C):** Quickly toggles between configs A/B/C without affecting connection-related parameters like the Connection ID.

**24. Resize:** Adjusts the display size or layout of the interface.

## 6.1.4 Dual/MS Mode - Automation When Parameter Link Is Enabled

It's important to understand that when using the PARAMETER LINK function to synchronize channels, automating just one channel is sufficient, as the linked channel will mirror the adjustments automatically. Should both channels be automated simultaneously, each will attempt to update the other, inevitably causing unpredictable and undesired outcomes. This feature is designed to streamline workflow and ensure cohesive sound processing across channels, but it requires careful management of automation to avoid conflicts.

## 7 Other Functions

In addition to its core features, \_HYPERION includes several other functions that enhance its versatility and user experience. These functions, while not as prominently featured as the main controls, play a crucial role in the unit's overall functionality and ease of use. Understanding these additional features will enable users to fully exploit the capabilities of the \_HYPERION, optimizing their workflow and achieving the best possible sound quality.

### 7.1 Operation Modes

\_HYPERION operates as an equalizer in the following modes:

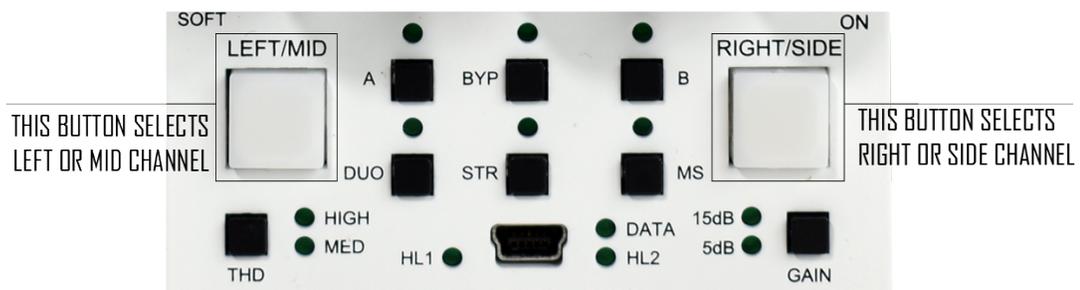
- **DUAL MONO** – Each channel operates independently, functioning as separate units without any linkage between them.
- **STEREO** – Both channels are linked, enabling the processing of stereo audio signals for more convenient control.
- **MID/SIDE** – Signals are encoded into MID and SIDE channels, then decoded back into stereo, facilitating individual control over the MID and SIDE channels.

\_HYPERION operates in various modes but can also be utilized in other ways:

- **STANDALONE** – The unit isn't connected to any digital control application, behaving like a typical analog unit.
- **CONNECTED to a PLUGIN** – The unit is linked to a plugin, allowing for complete recall and remote control.

When operating the unit from the front panel, and the channels are **unlinked**, you can control each channel independently:

- **LEFT/MID Button:** Selects the Left or Mid channel.
- **RIGHT/SIDE Button:** Selects the Right or Side channel.



## 7.1.1 Unit Standalone Usage

Below table describes unit behavior:

Mode	Management - A/B and Bypass	Channels
Dual mono	Global mode (1)	Unlinked mode (2)
Stereo	Global mode (1)	Master channel (3)
Mid/Side	Global mode (1)	Unlinked mode (2)

The management modes determine how the unit responds to A/B and Bypass buttons, providing the following options:

- **Global Mode (1)** – When you press A/B or Bypass, both channels are impacted, regardless of which channel is currently selected. These functions work in a way that affects both channels simultaneously, known as the global mode.

### Channels modes description:

- **Unlinked mode (2)** – In this mode, the LEFT/MID and RIGHT/SIDE channels operate completely independently. To change a parameter value, you must select a channel first, then adjust the parameter. Only the configuration of the selected channel is affected.
- **Master Channel (3)** – In Master Channel mode, channel 1 (LEFT/MID) becomes the master channel. This means that any parameters configured for analog channel 1 will automatically be applied to analog channel 2, ensuring a true stereo experience.

## 7.1.2 Unit With a Stereo Plug-in Usage

When the unit is connected to a stereo plug-in instance, all functions operate exactly as described in the standalone mode above. The only exception is when the unit operates in Dual or MS modes. In these modes, channels can be linked using the GUI's Parameter Link button. When this function is enabled, both channels will be linked relatively.



## 7.1.3 Unit With a Mono Plug-in Usage

This chapter describes how the unit behaves when connected to a mono plug-in.

Plugin type	Mode	A/B and Bypass	Channels
Mono (1)	Dual mono	Split mode (2)	Unlinked mode (3)

**(1) IMPORTANT NOTE:** When connecting the MONO plugin, it always activates the "Dual" mode, which is the only mode this plugin supports.

**(2) Split Mode** – This mode activates when a mono plugin instance is connected to at least one hardware channel. In Split Mode, A/B and Bypass operate independently for each channel, allowing true dual-mono operation for processing two separate mono sources (e.g., kick and snare). Each channel functions as a distinct hardware unit in this mode.

**(3) Unlinked mode (4)** – Each channel (LEFT/MID and RIGHT/SIDE) operates independently. To change a parameter:

- Using front panel - Select a channel and adjust parameters; changes only affect the selected channel.
- Using Mono plugin – The Mono plugin can adjust only the currently connected (paired) channel.

## 7.2 Memories

In terms of parameter storage:

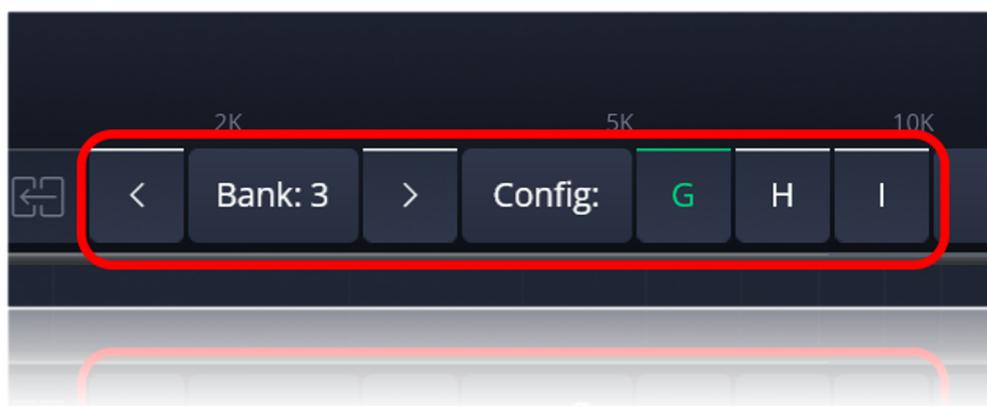
- The \_HYPERION unit offers **TWO** distinct quick-access presets, selectable via the A/B buttons.
- In contrast, the \_HYPERION plugin supports saving an **UNLIMITED** number of configurations. Each preset within the plugin provides three rapid configuration changes, labeled A/B/C per bank ID.

### 7.2.1 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 \_HYPERION plugin and the \_HYPERION 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.

### 7.2.2 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.



## 7.2.3 Metering

\_HYPERION offers two methods for metering:

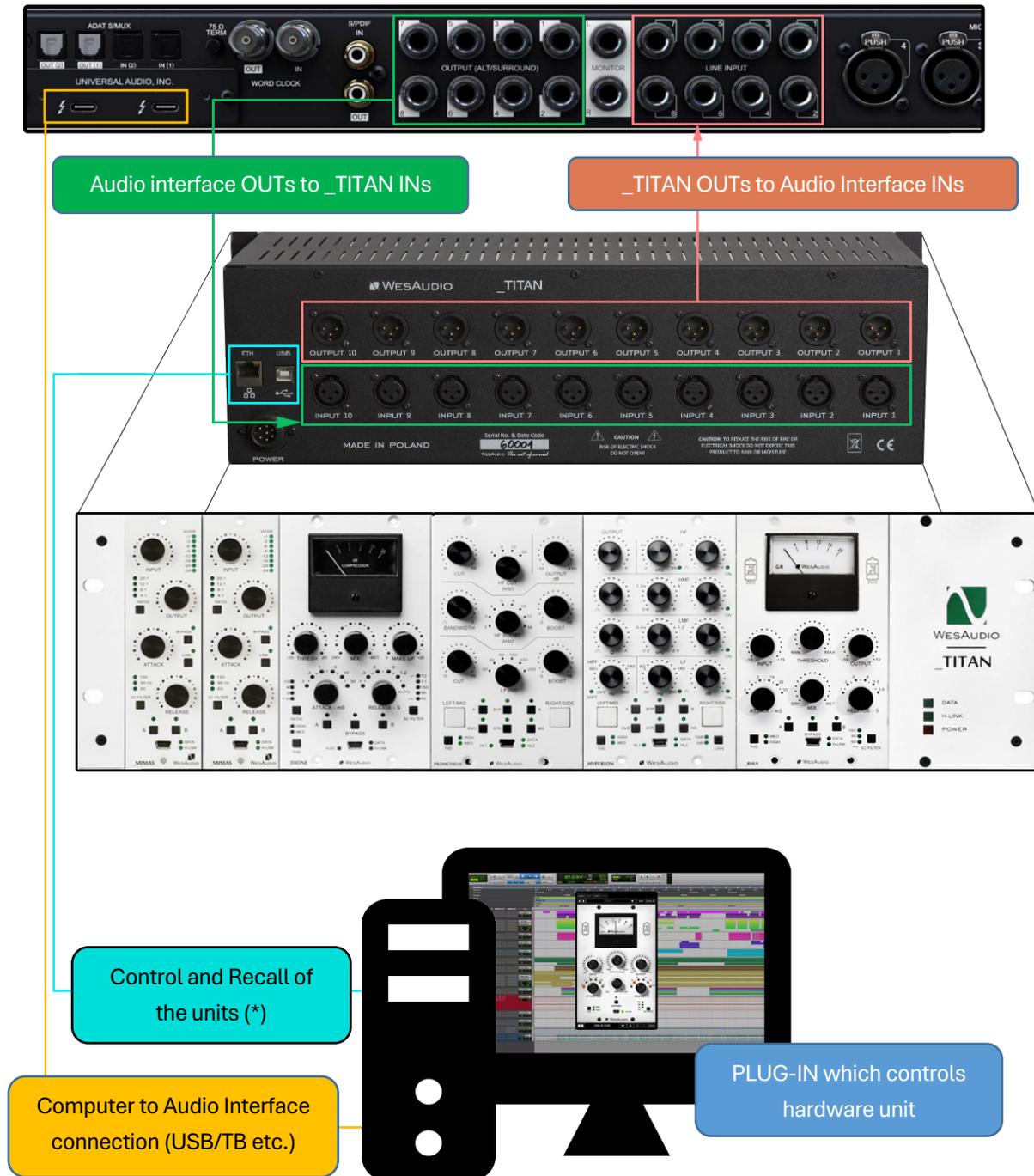
- Front panel clip detection: When a clip is detected either on the IN or OUT, the channel button turns red. This indication is brief and lasts for a short period.
- VU metering on IN and OUT, along with Clip detection in the plugin: When the plugin is linked to hardware, it transmits real-time VU levels. If a clip is detected, a special LED indicator in the plugin (separately for IN and OUT) visualizes this event. The clip state remains visible for several seconds and can be cleared by clicking on it.



## 8 Hookup Diagrams

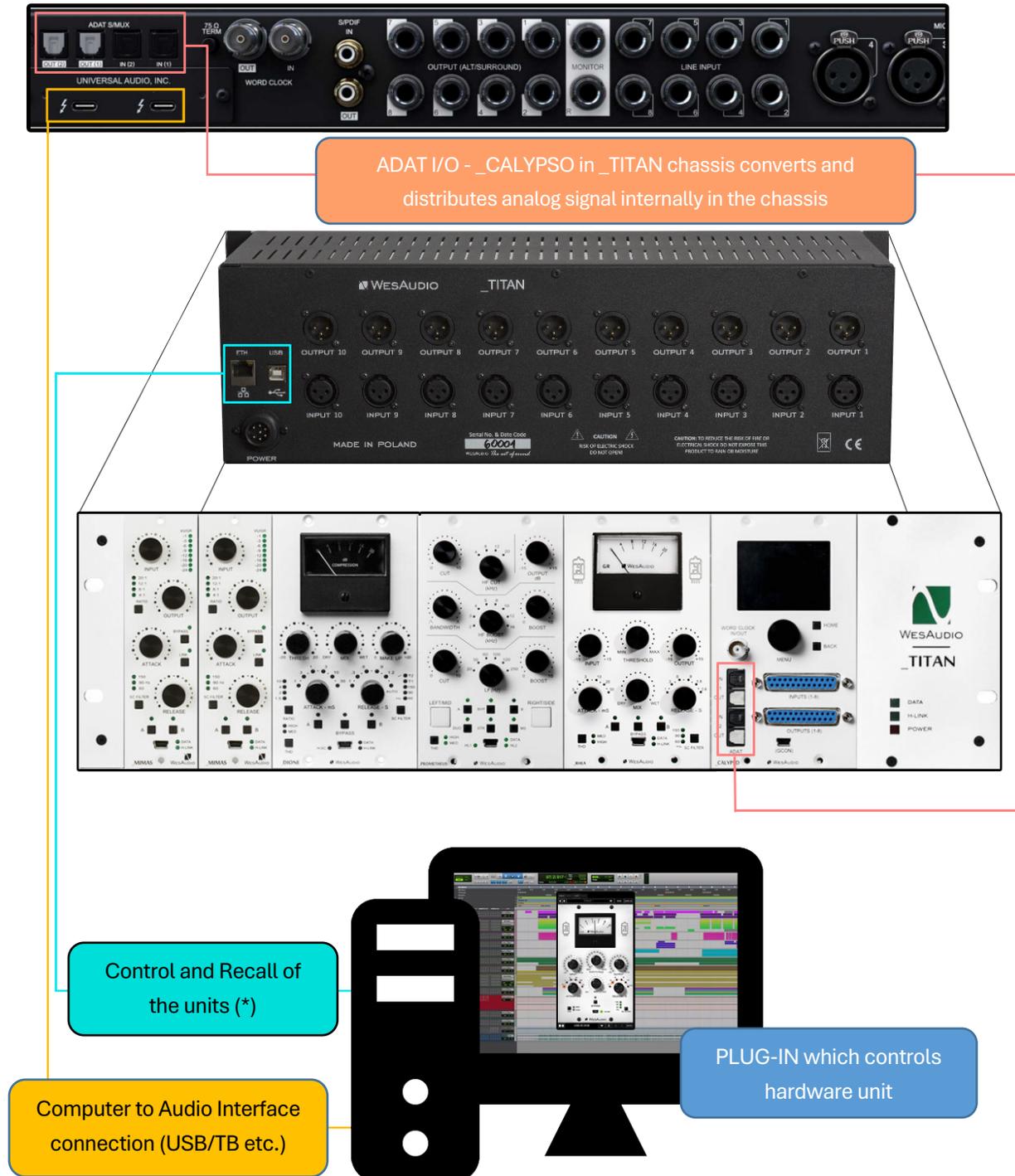
Below chapter shows possible hookup of the WesAudio devices and audio interface.

### 8.1 Hookup Diagram - Analog Cables With \_TITAN



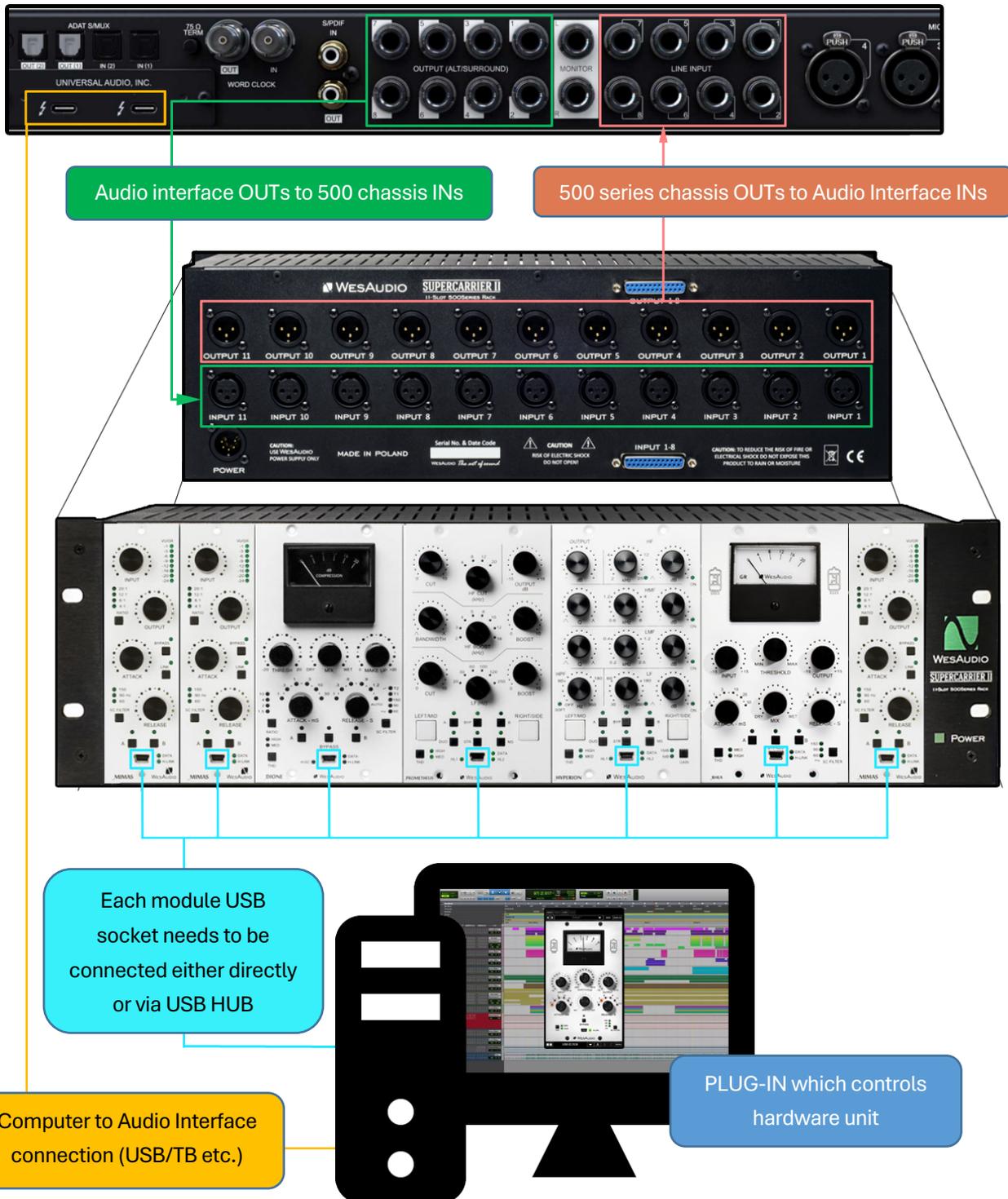
(\*) Please note that the \_TITAN Ethernet connection does not require a direct connection to a PC or Mac. You can also connect the \_TITAN directly to a router, allowing you to access and control all units within the \_TITAN via your local network.

## 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 <https://wesaudio.com/faq/> 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.