

\_CALYPSO USER MANUAL REV1

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

\_CALYPSO

User manual

EN



Copyright 2019 by WesAudio

Thank You for the purchase of \_CALYPSO

\_CALYPSO

**ng500/500 series AD/DA converter**

With kind regards



Radoslaw Wesolowski and Michal Weglicki

## NG500/500 series AD/DA converter.

\_CALYPSO is an audio interface designed to work in 500 series enclosure. It features state of art 8 channels of AD/DA conversion and perfectly integrates with ng500 chassis – \_TITAN, through I.A.C. connector. Besides its very convenient integration with ng500 chassis, it still can be used in standard 500 series enclosure using two DB25 connectors..



## Contents

1.	Overview .....	6
2.	Installation and compatibility. ....	7
3.	Specification.....	10
4.	Front panel.....	11
5.	I.A.C. – internal audio connector .....	12
5.1.	I.A.C – what is it? .....	12
5.2.	I.A.C – Source selection .....	13
5.3.	I.A.C – Signal flow .....	13
5.4.	I.A.C – How to remove and why? .....	14
6.	Setup and configurations.....	15
6.1.	Number of channels .....	15
6.2.	Front panel LCD screen .....	16
6.2.1.	Main screen .....	16
6.2.2.	Menu navigation.....	17
6.3.	Converter setup.....	18
6.3.1.	Digital connectivity .....	18
6.3.2.	Sample Rate .....	19
6.3.3.	Clock source.....	20
6.4.	Reference levels / Gain settings .....	21
6.5.	_TITAN – usage in ng500 chassis.....	22
6.5.1.	Setup variations with convenient I.A.C. recall.....	22
6.5.1.1.	Simple mixing setup.....	23
6.5.1.2.	Recording and HW insert mixing mode setup.....	24
6.5.1.3.	HW insert mode and unit chaining.....	26
6.5.1.4.	_CALYPSO with external outboard (IAC ON – HW insert, IAC OFF – calypso output -> patchbay, XLR IN to modules, and to CALYPSO IN).....	28
6.6.	Usage in standard 500 series chassis. ....	29
7.	Software.....	30
7.1.	Installation.....	30

\_CALYPSO USER MANUAL REV1

7.1.1. Windows .....	30
7.1.2. OSX.....	30
7.1.3. Troubleshooting.....	30
7.2. Plug-in.....	32
7.3. Memories .....	34
7.3.1. Synchronization upon connection .....	34
7.3.2. Memory synchronization between plugin and hardware .....	34
7.3.2.1. Synchronized memory enabled .....	35
7.3.2.2. Synchronized memory disabled .....	35
7.4. Multi Host Support.....	36
7.5. GCon Manager .....	37
7.5.1. How to check firmware upgrade. ....	37
7.5.2. How to perform firmware upgrade. ....	38
8. Abbreviations and terms.....	39
9. Warranty.....	39
10. History.....	40

## 1. Overview

\_CALYPSO is an AD/DA converter designed to work in 500 series enclosure.

### **MAIN FEATURES:**

#### **24bit conversion**

**Supported sample rates: 44.1kHz, 48kHz, 88.2kHz(SMUX), 96kHz(SMUX)**

**Ultra low jitter clock**

Word clock IN/OUT

**Full integration with \_TITAN via IAC connector (Just ADAT cables are need to route all signal to and from chassis)**

Two DB25 connectors allows integration with any 500 series chassis

Two converter reference levels +4dBu/-10dBV

LCD screen with channel metering

## 2. Installation and compatibility.

WesAudio \_CALYPSO converter module is designed to be installed into:

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

WesAudio \_CALYPSO cannot function standalone, requiring the power source supplied by the rack system.

After unpacking your \_CALYPSO module, please check for any visible damage that may have occurred during transit. If there is any problem, please contact your dealer immediately!

### **Module installation walkthrough:**

Choose the position in the rack to which you will install the module and slide it in so that the edge connector of the module aligns with the matching connector in the rack. A gentle push and the module should slide home into the rack connector. Attach the front panel to the front of the rack with screws supplied by your rack manufacturer. This is important for mechanical rigidity. Do not over tighten these screws to avoid stripping out the threads. Apply power, test that everything is working OK, and most importantly, enjoy!

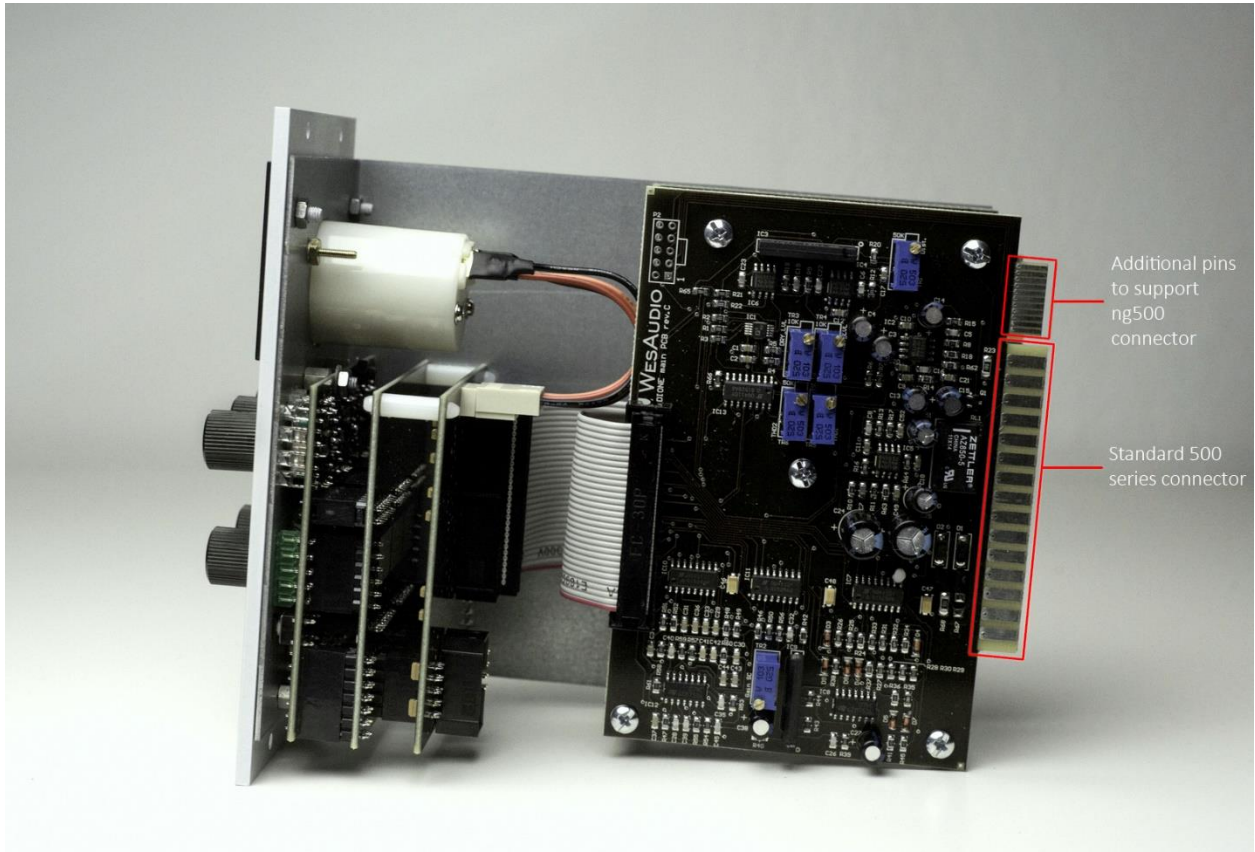
**!!!Ensure the rack is completely powered down before attempting installation to prevent damage to the module!!!**

### **IMPORTANT HEAT INFORMATION:**

- Unit produces fair amount of heat because of its power consumption, it is highly recommended to leave empty space above and below chassis to allow proper air circulation. Ideally 1U space above, and 1U space below.

**500 series compatibility note:**

Each WesAudio device in ng500 (Next Generation 500 series) product line is equipped with special connector. This connector is an extension to 500 series, and allows your device to be managed/recalled through specialized GCon protocol (e.g. \_Titan 500 series 10 slots frame).



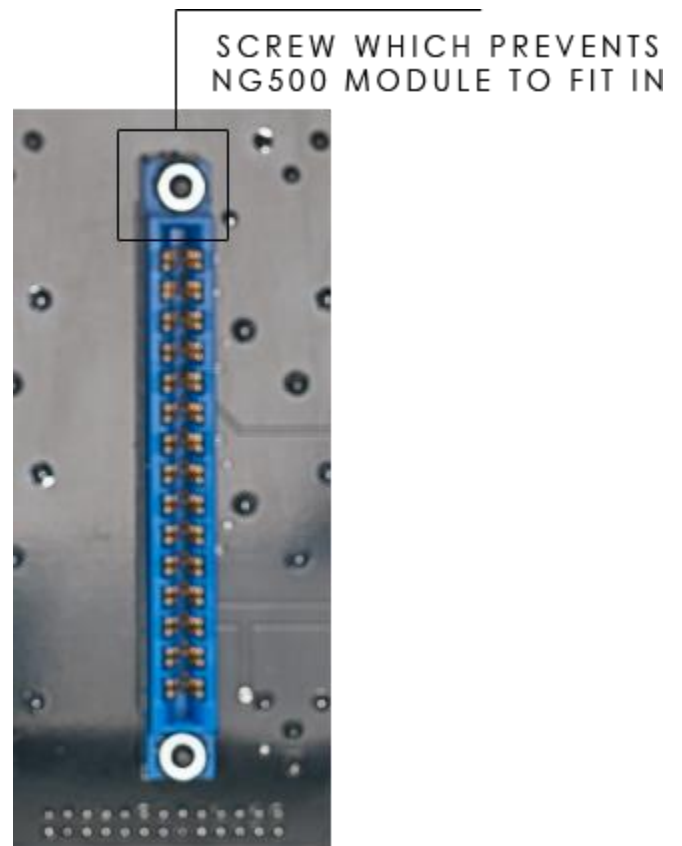
This extension is compatible with 500 series standardized plug type, however some manufacturers apply enormous screws to the plug itself, which prevent the device to fit in. Based on official research more than 90% of available 500 series racks will fit just fine. Currently known exceptions:

- Rupert Neve Designs 500 series Rack (confirmed),
- Aphex 500 series rack (not confirmed),
- Some older BAE racks (not produced anymore).



If you are in possession of any of those 500 series racks, there are two options:

- 1) NG500 module won't fit into this racks because of upper screw attached to 500 series connector. This particular screw can be removed without any side effects in most of listed racks. With such simple modification your rack is ready to host any NG500 module on this particular slot.
- 2) **IMPORTANT ORDER NOTE:** Each device can be ordered without special 500 series connector, however:
  - The device compatibility with \_titan frame is broken, and will not work.
  - The device can be managed/recalled via direct USB connection without any problems.

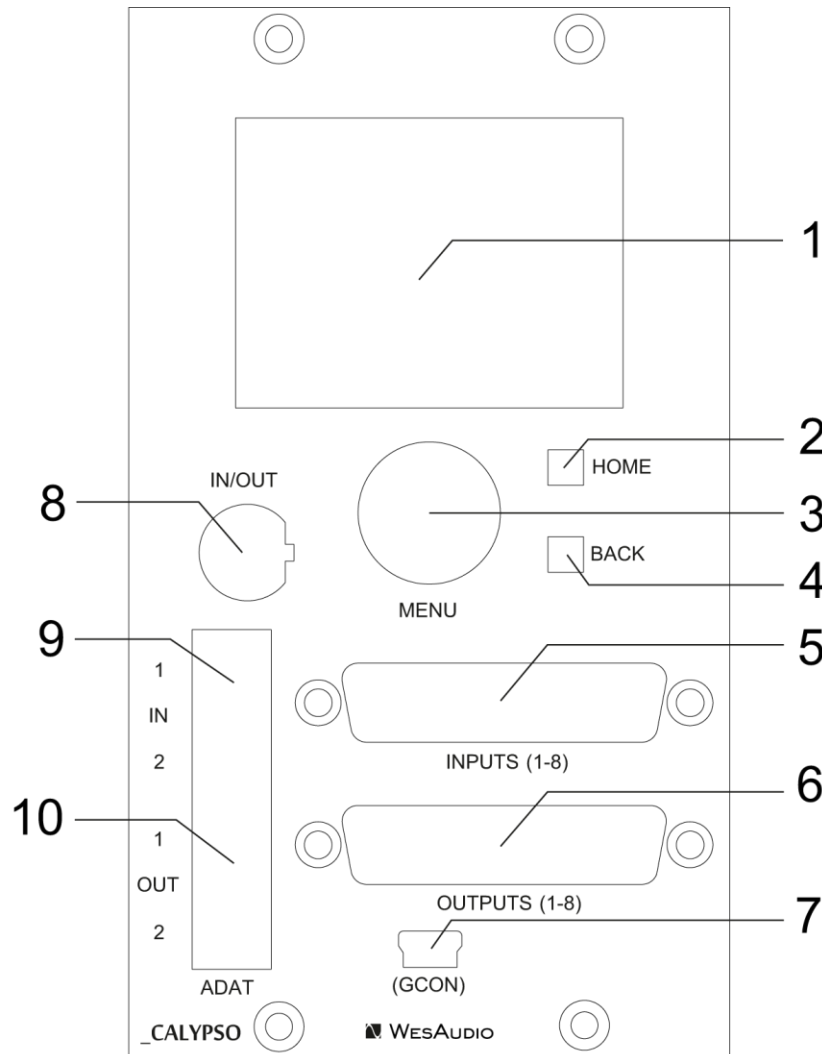


## 3. Specification

Short specification summary:

- Power consumption: 150mA per rail
- Dimensions : 76x133x158mm
- Warranty: 2 years
- Inputs(ADC):
  - Freq. response - 20Hz-20kHzm +/- 0.1dB
  - THD+N (unweighted): -108dB (0.0004%)
  - Dynamic range (unweighted): 116dB
  - Gain Settings: +4 dBu / -10 dBV (selectable per input)
  - Maximum Input Level: (+4 dBu) +20 dBu
  - Input Impedance: 10K Ohms
  - Connector type: DB25/IAC
- Outputs(DAC):
  - Freq. response - 20Hz-20kHzm +/- 0.1dB
  - THD+N (unweighted): -105dB (0.0005%)
  - Dynamic range (unweighted): 115dB
  - Gain Settings: +4 dBu / -10 dBV (selectable per output)
  - Maximum Output level: (+4 dBu) +20dBu
  - Output Impedance: 100 Ohms
  - Connector type: DB25/IAC

## 4. Front panel



- 1) LCD screen.
- 2) HOME button – while in menu, hitting this button will go back to main screen.
- 3) MENU encoder
- 4) BACK button – while in menu returns to previous menu item.
- 5) DB-25 8 channels input.
- 6) DB-25 8 channels output.
- 7) USB socket – used to connect with a plugin or firmware upgrade when \_TITAN connection isn't used.
- 8) 8 Word Clock IN/OUT socket.
- 9) ADAT IN connectors – two ADAT IN sockets.
- 10) ADAT OUT connectors – two ADAT OUT sockets.

## 5. I.A.C. – internal audio connector

This chapter describes I.A.C. – Internal Audio Connector.

### 5.1. I.A.C – what is it?

I.A.C. – Internal Audio Connector, is a special socket next to slot number 10 in \_TITAN chassis. This connector allows to route signal to, and from slots number 1 to 8. \_CALYPSO implements this standard via separate and easy to remove PCB, and thus it allows full audio integration with \_TITAN chassis. In practice it means that there are no additional wires needed to send and receive signal from all modules inside \_TTIAN chassis!



## 5.2. I.A.C – Source selection

\_CALYPSO through I.A.C. connector will route signal to the modules inside \_TITAN, and in practice it means that input to each module have **two** signal sources. This approach could end up in unwanted and problematic situation (two signal sources can be received by module in the \_TITAN chassis) **that is why, input source of each module can be selected in \_TITAN, and it can either be:**

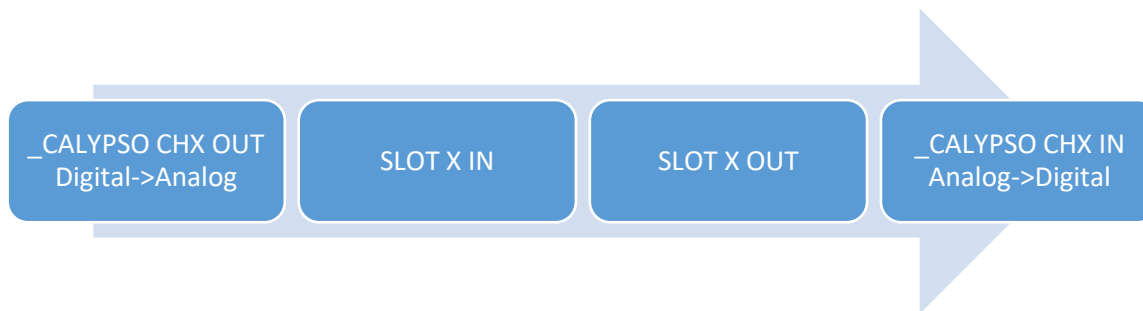
- I.A.C. (Internal connector),
- Or back XLR IN socket.

Signal source is selected using high quality **relay switches**, and does not produce any quality loss. This concept goes even further and source of the signal can be independently controlled and recalled for each slot via remote application (GConManager) or DAW \_CALYPSO plug-in. Ability to recall your routing can lead to many advantages in your setup. Possible solutions are described in [Setup variations with convenient I.A.C. recall](#), so please refer to this section to improve your mixing workflow!

When it comes to the output of the modules – signal will always go to the I.A.C. connector (possibly \_CALYPSO A/D – IN), and to the XLR back on the \_TITAN chassis at the same time. This configuration is static, and it is not possible to change that routing via relay switches like it is implemented for each “IN” of the modules.

## 5.3. I.A.C – Signal flow

Below picture shows signal flow while using I.A.C. connector with \_TITAN and \_CALYPSO.

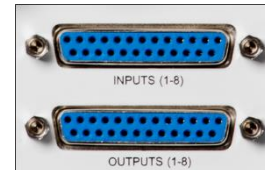


- *SLOT X* – Slot 1 to 8
- *CHX* - \_CALYPSO channel 1 to 8
- **Please note that in this setup \_CALYPSO channel number always equals \_TITAN Slot number.**

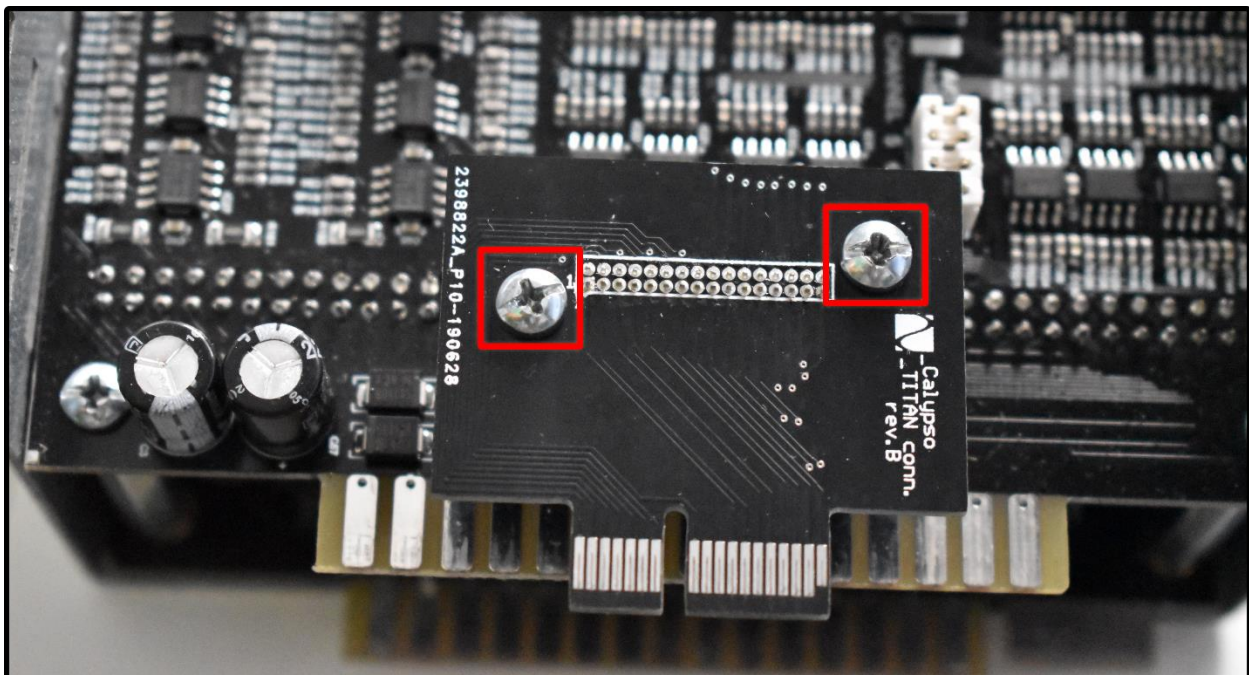
## 5.4. I.A.C – How to remove and why?

There could be two possible reasons to remove I.A.C. connector from \_CALYPSO:

- I.A.C. is addition to 500 series standard, and there might be a reason that it would have to be removed in order to fit some particular chassis type. \_CALYPSO has been successfully tested against many other chassis types, but in order to be sure that I.A.C. won't cause any problems it is very easily removable.
- If internal connector is simply not desired to be used inside \_TITAN, where \_CALYPSO will be used as standard AD/DA converter using front panel DB-25 sockets.



To remove I.A.C. connector please remove two marked on the image screws:



## 6. Setup and configurations

This chapter presents all basic configurations including separate setups for different chassis types.

### 6.1. Number of channels

Calypso is 8 channels AD/DA converter, but please note:

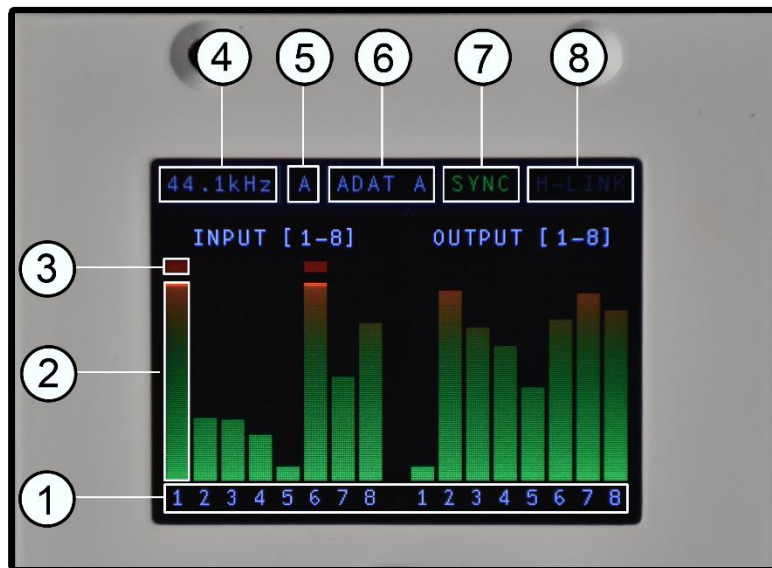
- To use all 8 channels of AD/DA in 88.2 kHz or 96 kHz sample rate, four ADAT cables have to be used (2 IN and 2 OUT).
- To use calypso in 44.1 kHz or 48 kHz sample rate – only two cables (1 IN and 1 OUT) are needed for unit to properly operate.
- If sample rate 88.2 kHz or 96kHz will be selected, but only two ADAT cables will be used (1 IN and 1 OUT), only 1<sup>st</sup> 4 channels of will be used.

## 6.2. Front panel LCD screen

This chapter describes basic operation patterns accessible through unit's front panel.

### 6.2.1. Main screen

This chapter describes all fields visible on the main screen. For details please refer to the below picture:



- 1) **Channel numbers.**
- 2) **Metering** - \_CALYPSO supports very fast and accurate PPM metering.
- 3) **Clip indicator.**
- 4) Currently active **Sample Rate** configuration. For more information please refer to chapter [Sample Rate](#).
- 5) **Source of Sample Rate** configuration (more information in chapter [Sample Rate](#)), possible values are:
  - a. "A" – automatic mode, sample rate is detected from peripherals based on clock source.
  - b. "M" – Sample rate was manually selected.
  - c. "H" – Sample rate is configured by DAW HOST via DAW plug-in.
- 6) **Clock Source** – for more information please refer to chapter [Clock source](#).
- 7) **Clock sync status**, possible values:
  - a. "SYNC green" – clock synchronized,
  - b. "SYNC red" – clock not synchronized.
- 8) **H-LINK** – indication if DAW plug-in is connected to this particular hardware instance.



## 6.2.2. Menu navigation

All functions of \_CALYPSO are easily accessible through unit's menu. Push "MENU" encoder in order to access menu. Turn menu knob to scroll through the menu sections. In order to change particular setting:

- Push "MENU" encoder,
- Particular setting will highlight,
- Move "MENU encoder" to change value to desired state,
- Push "MENU" encoder to apply a change.

Push "BACK" button in order to go back to previous menu item.

Push "HOME" button to exit menu and go back to main screen.

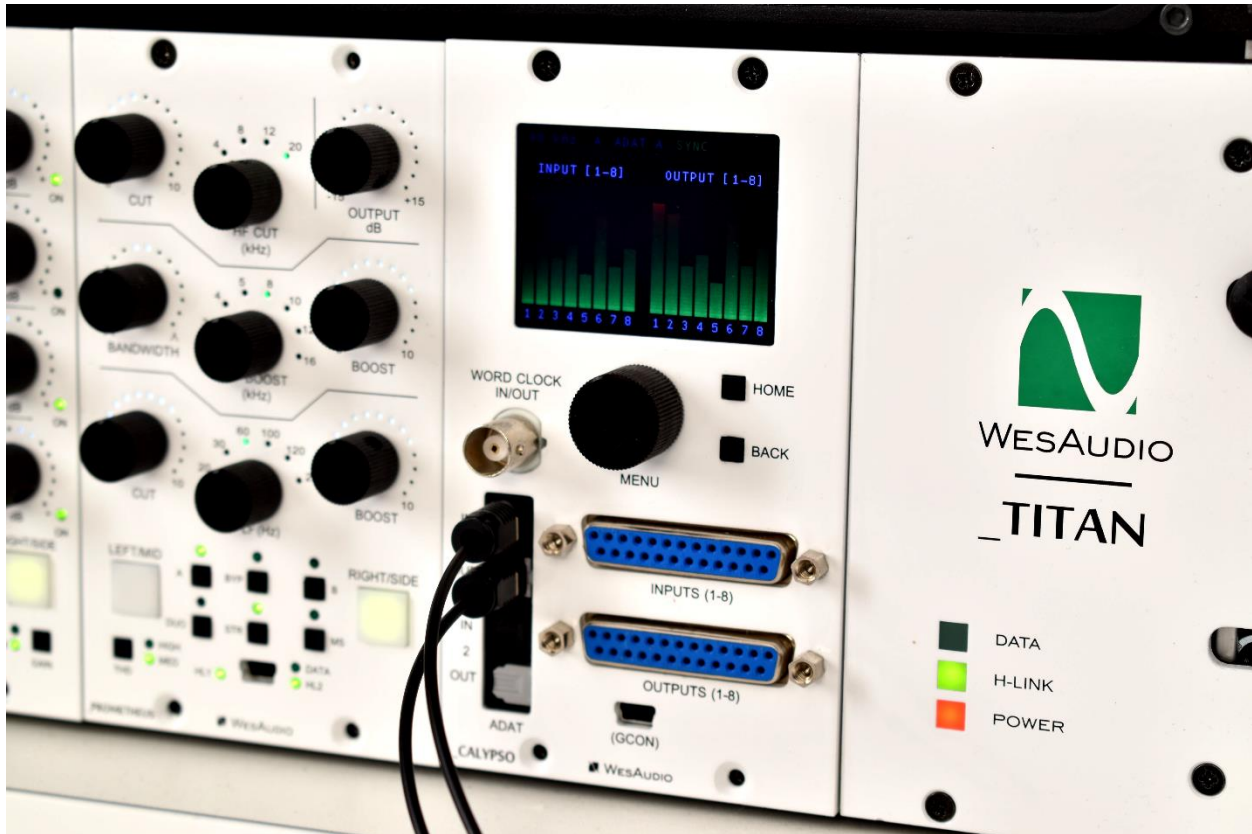
Please note that all settings accessible in the menu are described in next chapters.

## 6.3. Converter setup

This chapter describes how to setup main parameters of \_CALYPSO.

### 6.3.1. Digital connectivity

\_CALYPSO is AD/DA converter which supports ADAT digital connectivity. This means that in order to use it inside studio environment, an audio interface is needed which supports this particular extension.



## 6.3.2. Sample Rate

Sample rate of the \_CALYPSO can be managed from:

- Unit's front panel,
- From the VST2/VST3/AU/AAX plug-in (from any compatible DAW – e.g. Pro Tools, Cubase etc.)



**CALYPSO provides following options when it comes to sample rate configuration:**

- **MANUAL** – manual setting of the sample rate, it can be either set up from the plugin, or from the menu, options are:
  - 44.1 kHz
  - 48 kHz
  - 88.2 kHz
  - 96kHz
- **AUTO** – automatic mode which reads currently set sample rate from peripherals based on **Clock Source parameter**, few things to be aware of:
  - This mode is only active if “Clock Source” is configured to support external peripherals read (when clock source is either ADAT A, ADAT B or Word Clock).
  - **IMPORTANT:** some interfaces don't provide information about double clocking, in practice it means that switching your master clock (e.g. on audio interface) from 44.1 kHz to 96kHz would make \_CALYPSO to switch to 48 kHz instead of 96 kHz – as information about double clocking isn't provided. In that case, sample rate have to be either:
    - Set manually,
    - Or DAW plugin may be used in HOST mode – please check below.
- **HOST** – this mode is accessible only through DAW plug-in, and in that case, Sample Rate is read from DAW session. One thing to note:
  - When plug-in is disconnected, unit will set up same sample rate, and enter “Manual mode”.

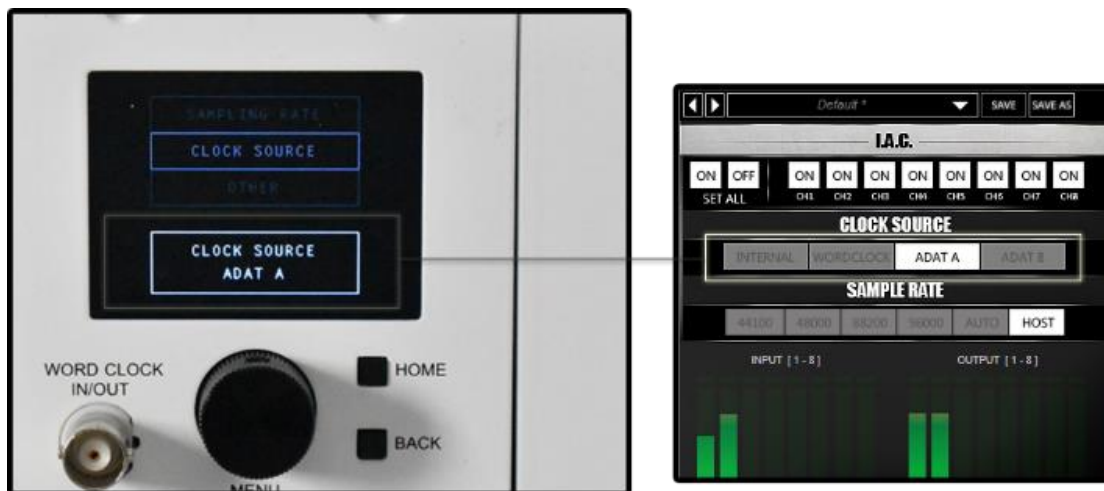
### 6.3.3. Clock source

\_CALYPSO supports few different clock sources:

- Internal – in this mode \_CALYPSO acts as master clock source, and audio interface connected to \_CALYPSO through ADAT cables have to be synced to it. In this mode front panel “WC – Word Clock” socket will be automatically switched to “OUT” upon selection of this mode.
- ADATA/ADATB – \_CALYPSO will be synced to clock provided through ADATA/ADATB IN. In this mode front panel “WC – Word Clock” socket will be automatically switched to “OUT” upon selection of this mode.
- WC – in this mode \_CALYPSO will be synced to clock provided through front panel “WC Word Clock” – WC socket on the front panel will be automatically switched to “IN” upon selection of this mode.

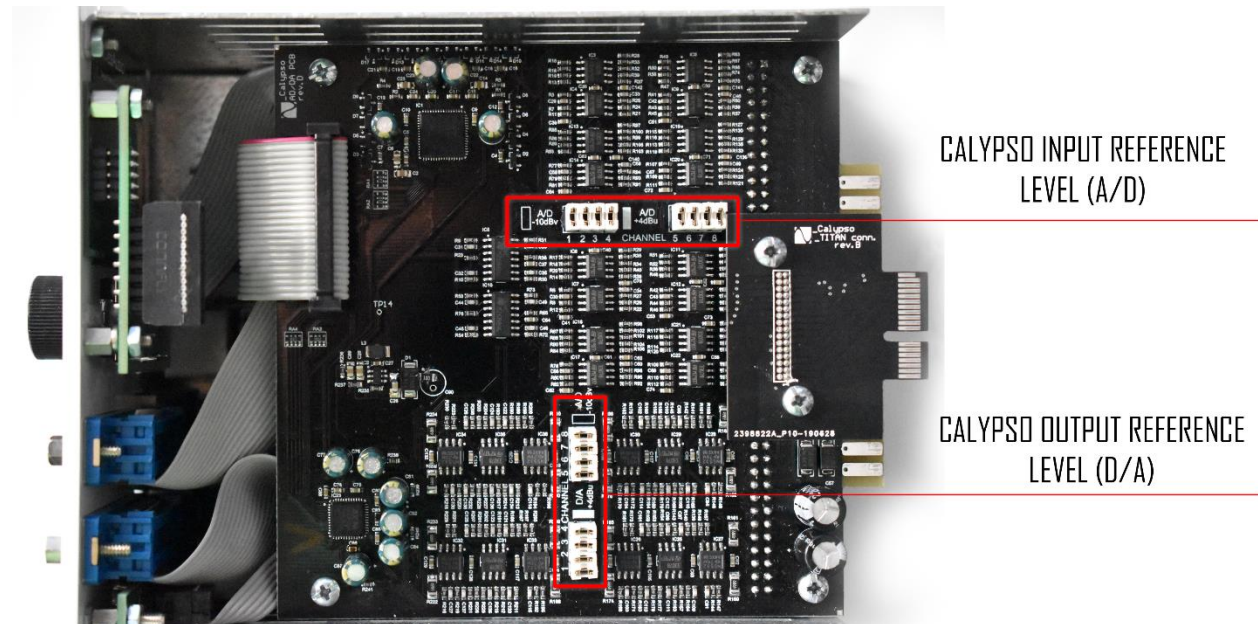
Exactly as “Sample rate” clock source can be set up using:

- Unit’s front panel,
- From the VST2/VST3/AU/AAX plug-in (from any compatible HOST – e.g. Pro Tools, Cubase etc.).



## 6.4. Reference levels / Gain settings

\_CALYPSO as AD/DA converter supports two reference levels **+4 dBu / -10 dBV**. Each of those levels can be applied to any input or output via jumpers located on PCB.



**By default unit is configured with +4 dBu reference level. Setup rule is:**

- If the jumper for particular channel is set up, reference level is +4dBu,
- If the jumper for particular channel is removed, reference level is -10dBV.

**Please note that either +4dBu or -10dBV reference level can be applied to any input or output independently.**

## 6.5. \_TITAN – usage in ng500 chassis

This chapter presents various configuration and usage examples of \_CALYPSO inside last two slots in ng500 chassis. General idea behind \_CALYPSO and its integration with I.A.C. connector – it allows to send signal separately to slot 1-8 without any additional wires. So when I.A.C. on particular slot is enabled, sending signal to \_CALYPSO channel 1 OUT (D/A), will send it directly to module on Slot 1, this signal will be processed through this particular device, and signal will go back to \_CALYPSO channel 1 IN (A/D).

### 6.5.1. Setup variations with convenient I.A.C. recall

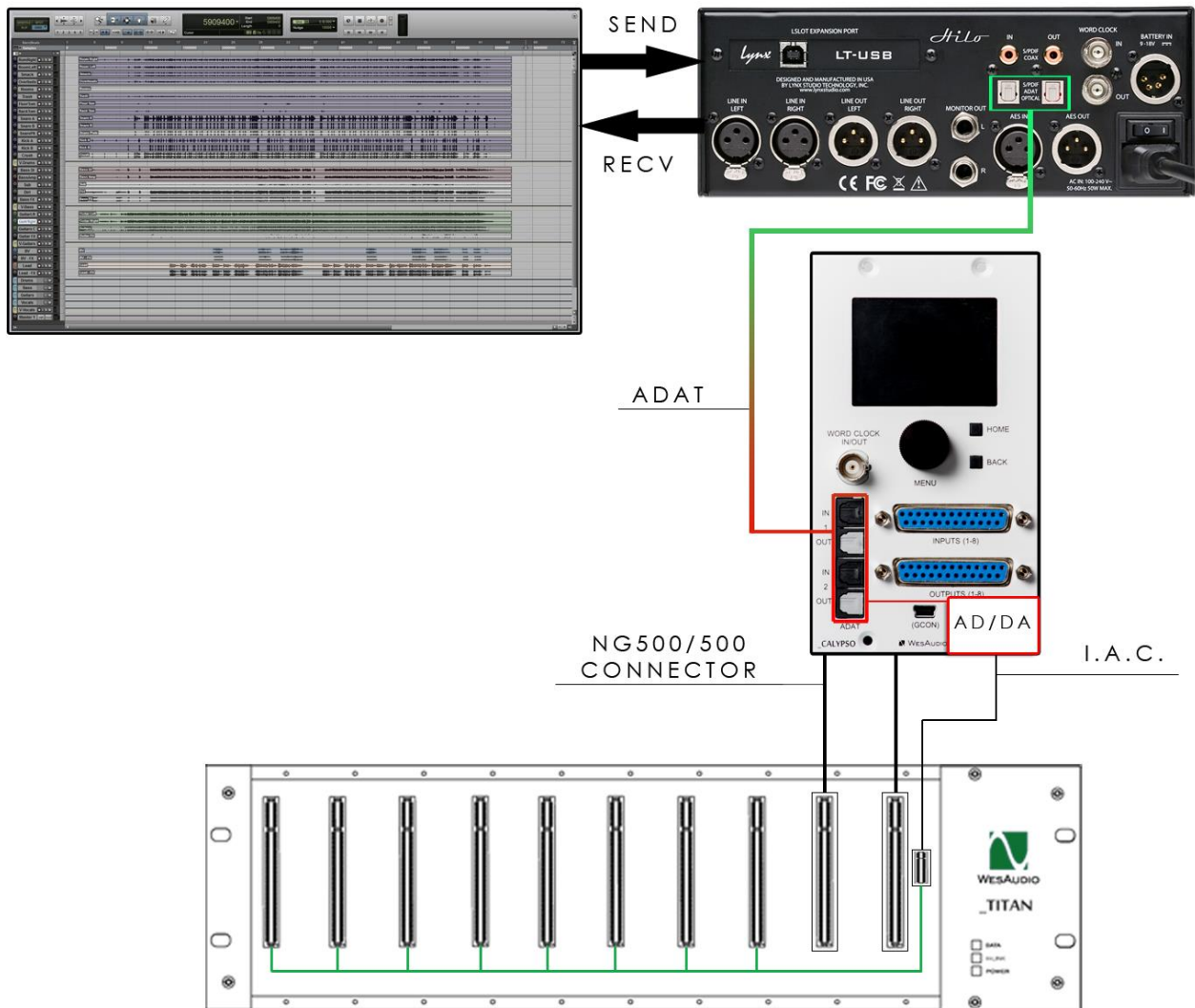
This chapter describes few possible setups using \_CALYPSO inside ng500 chassis - \_TITAN chassis. All configuration inside \_TITAN will take advantage of I.A.C. connector and its recall through DAW \_CALYPSO plugin. The advantage of this approach is that you can automate workflow and recall audio routing through DAW session load. Below chapters starts from easy and straightforward approach and goes deeper into possible aspects of routing recall later on.

### 6.5.1.1. Simple mixing setup

In this setup \_CALYPSO is center piece of your hardware inserts management - to route signal to any particular slot, **I.A.C. on that slot** (accessible from \_CALYPSO plug-in or through CGonManager \_CONFIG application) **have to be enabled**. In this particular case our signal flow would be:

- **HW insert in DAW -> ADAT Y\*\* OUT -> \_CALYPSO D/A X\* -> SLOT X\* IN -> SLOT X\* OUT -> \_CALYPSO A/D X -> ADAT Y\*\* IN -> HW insert in DAW.**
  - (\*) X – calypso channel number and \_TITAN slot number,
  - (\*\*) Y – ADAT channel of audio interface.

It is very convenient access to modules on slots 1 to 8 without any additional wires, just ADAT cables are needed!



\_TITAN and \_CALYPSO routing

### 6.5.1.2. Recording and HW insert mixing mode setup

In this particular setup, above idea is extended and allows to easily switch \_CALYPSO into recording interface.

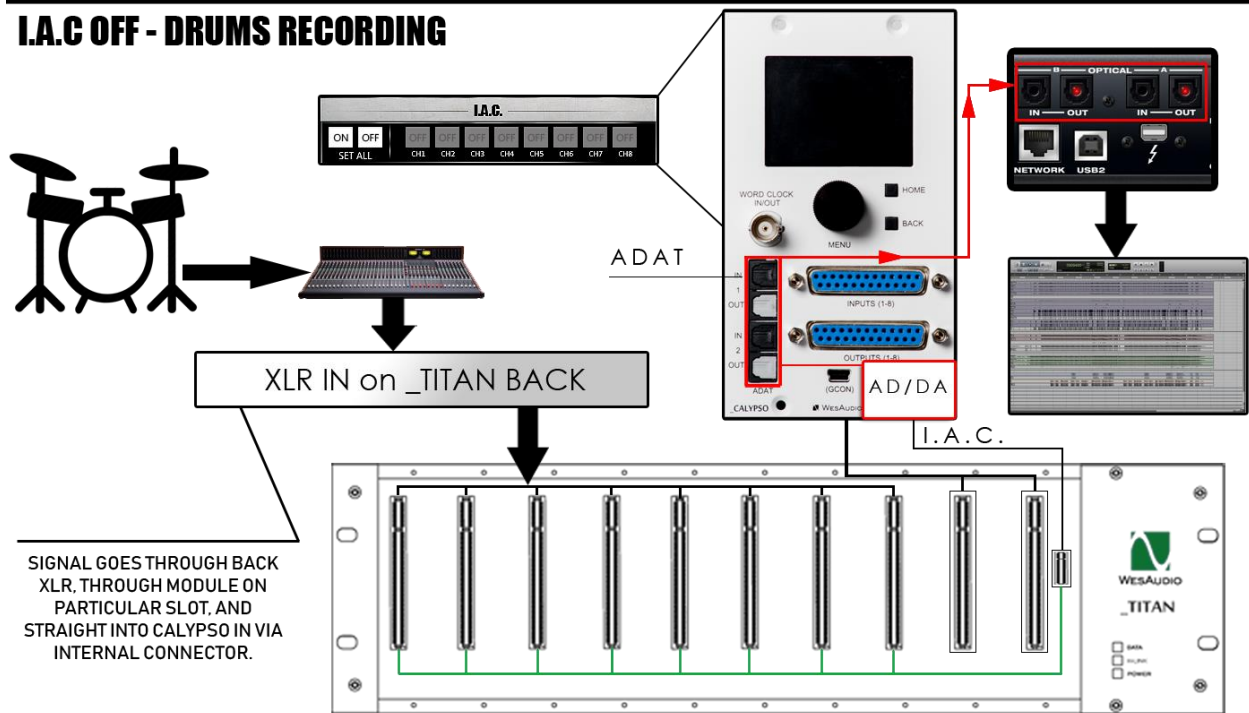
- If I.A.C. connector will be **ON** for all channels (please refer to chapter [Simple mixing setup](#) for more details):
  - **HW insert in DAW -> ADAT Y\*\* OUT -> \_CALYPSO D/A X\* -> SLOT X\* IN -> SLOT X\* OUT -> \_CALYPSO A/D X -> ADAT Y\*\* IN -> HW insert in DAW.**
    - (\*) X – calypso channel number and \_TITAN slot number,
    - (\*\*) Y – ADAT channel of audio interface.
- If I.A.C. will be **OFF** for all channels:
  - **XLR X\* Back -> SLOT 1 IN -> SLOT 1 OUT -> \_CALYPSO A/D X\* -> ADAT Y\*\* IN -> HW insert in DAW.**
    - (\*) X – calypso channel number and \_TITAN slot number,
    - (\*\*) Y – ADAT channel of audio interface.

This setup is perfect for any studio which values easy switching between sessions. For instance, recording session is ongoing, but only for a part of a day, ability to get back to work on different mixing projects without any setup changes (**RECALL!**), is really convenient! For more details please refer to below picture:

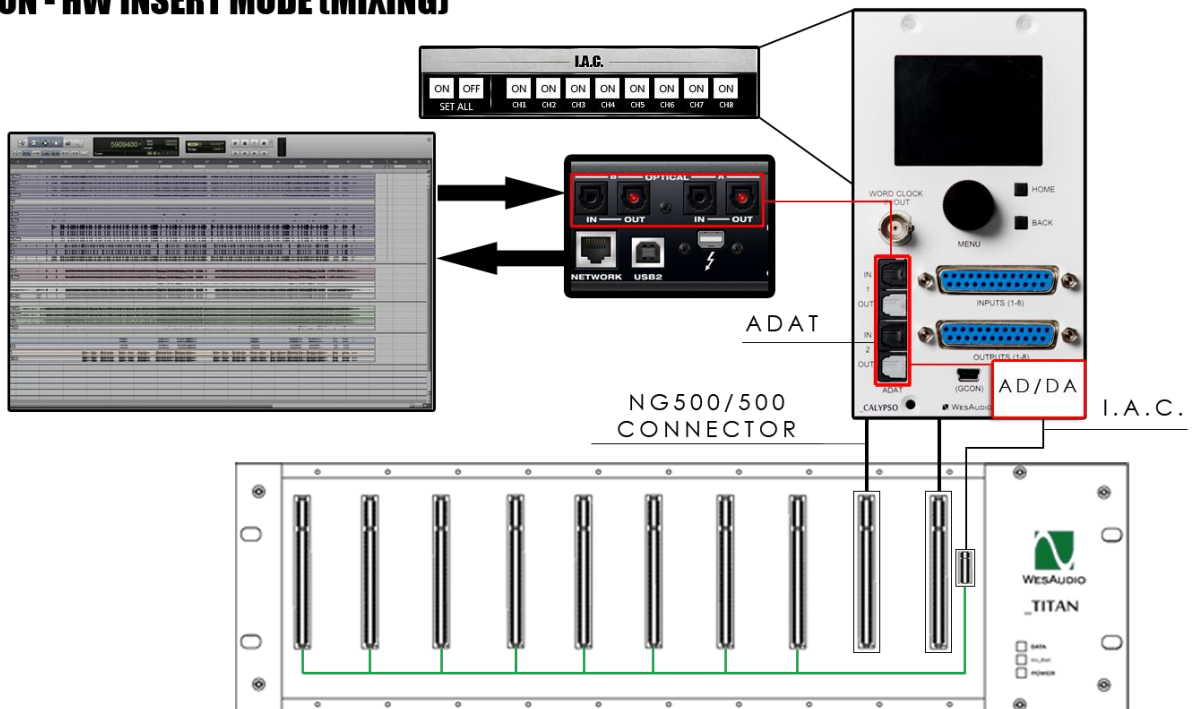


\_CALYPSO USER MANUAL REV1

### I.A.C OFF - DRUMS RECORDING



### I.A.C ON - HW INSERT MODE (MIXING)



### 6.5.1.3. HW insert mode and units chaining

This particular setup allows to switch between two modes:

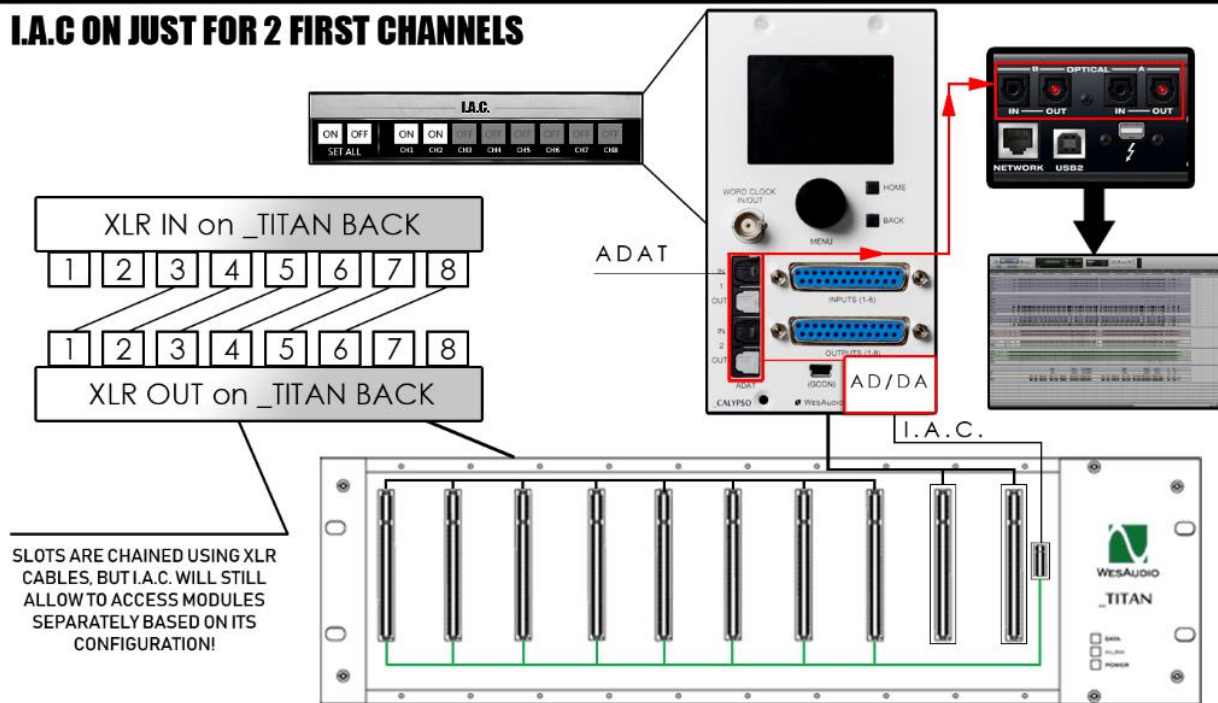
- HW insert mode (described in chapter [Simple mixing setup](#) ) which allows to access each module separately,
- And units chaining.

Such mode can be useful, if for instance we would like to switch between mixing and mastering projects, or we simply would like to use modules in chain in some sessions:

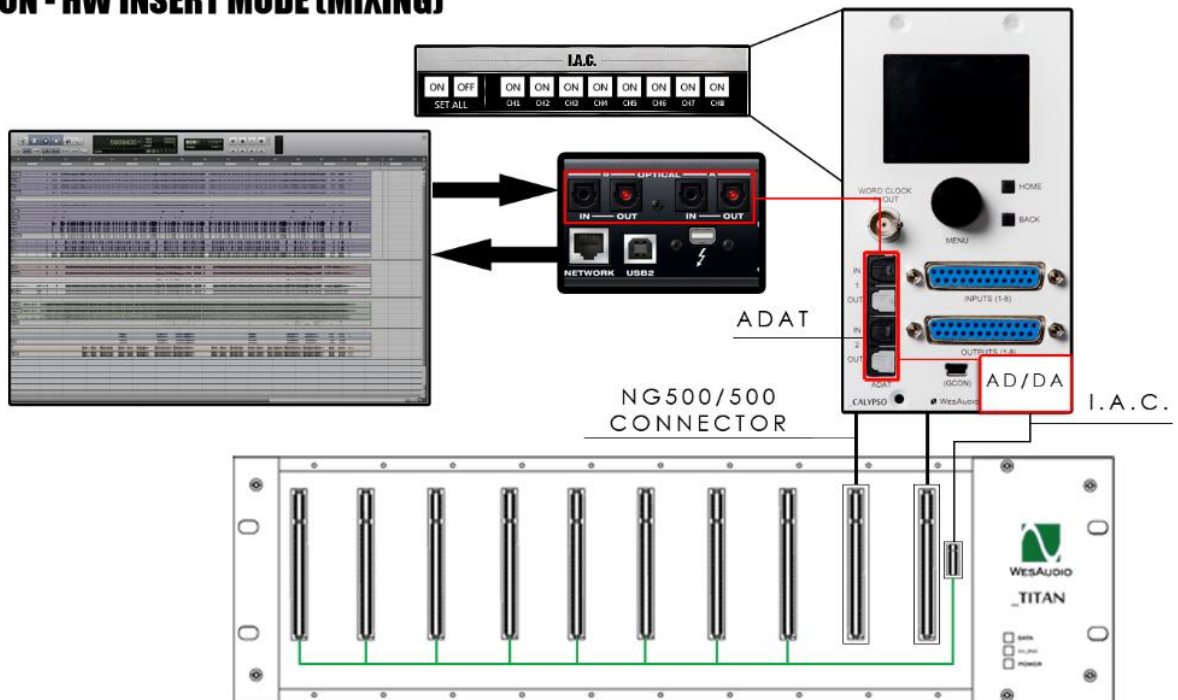
- If I.A.C. connector will be **ON** for all channels (please refer to chapter [Simple mixing setup](#) for more details):
  - **HW insert in DAW -> ADAT Y\*\* OUT -> \_CALYPSO D/A X\* -> SLOT X\* IN -> SLOT X\* OUT -> \_CALYPSO A/D X -> ADAT Y\*\* IN -> HW insert in DAW.**
    - (\*) X – calypso channel number and \_TITAN slot number,
    - (\*\*) Y – ADAT channel of audio interface.
- If I.A.C. will be **ON JUST FOR TWO FIRST CHANNELS**:
  - **SEND from DAW of \_CALYPSO channels 1 & 2 -> ADAT Y\*\* OUT -> \_CALYPSO D/A CH1-2 ->**
  - **SLOT 1-2 IN -> SLOT 1-2 OUT -> SLOT 3-4 IN -> SLOT 3-4 OUT ->**
  - **SLOT 5-6 IN -> SLOT 5-6 OUT -> SLOT 7-8 IN -> SLOT 7-8 OUT -> \_CALYPSO A/D CH7-8 -> ADAT Y\*\* IN -> RECEIVE signal in DAW.**
    - (\*\*) Y – ADAT channel of audio interface.
    - Please note that channels 3-6 on \_CALYPSO will still receive signal from each slot accordingly.

**For more information please refer to the picture below:**

### I.A.C ON JUST FOR 2 FIRST CHANNELS



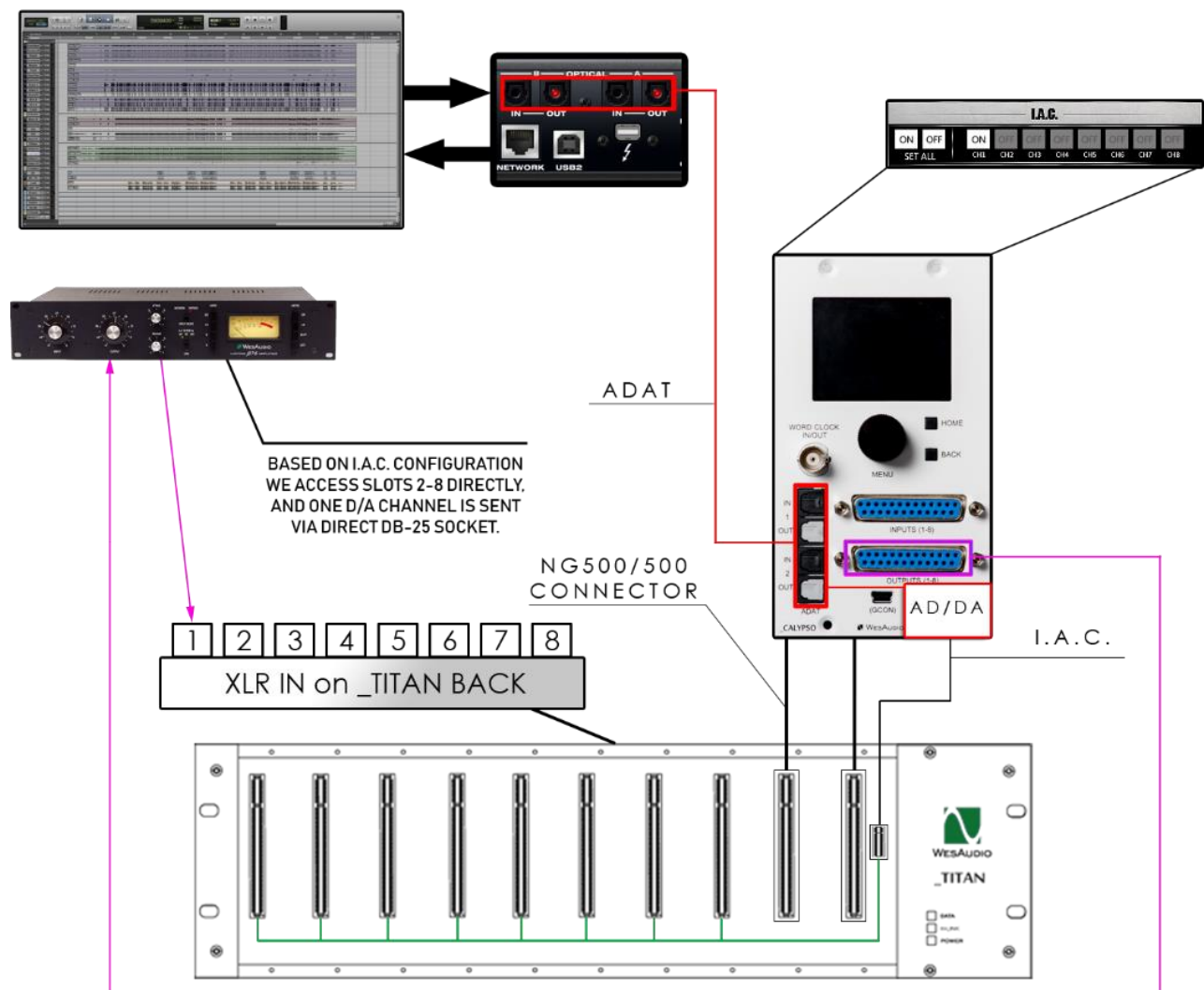
### I.A.C ON - HW INSERT MODE (MIXING)



### 6.5.1.4. \_CALYPSO with external outboard gear

As described in chapter [Simple mixing setup](#) we can use I.A.C. connector to access modules independently. However there might be a situation that we would like to chain modules inside \_TITAN with some outboard gear, and still use \_CALYPSO I/O. To configure such approach, there are two important things to be aware of:

- Modules in \_TITAN chassis need to be last in chain (as “OUT” of each slot is hardwired with \_CALYPSO IN channel via I.A.C. connector),
- Signal has to be sent to outboard gear via DB-25 OUTPUT connector on \_CALYPSO front panel.



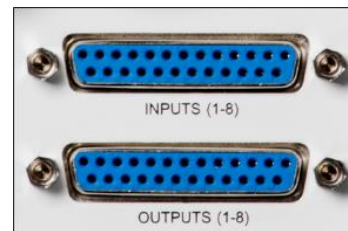
\_CALYPSO USER MANUAL REV1

- If I.A.C. connector will be **ON** for all channels (please refer to chapter [Simple mixing setup](#) for more details):
  - **HW insert in DAW -> ADAT Y\*\* OUT -> \_CALYPSO D/A X\* -> SLOT X\* IN -> SLOT X\* OUT -> \_CALYPSO A/D X -> ADAT Y\*\* IN -> HW insert in DAW.**
    - (\*) X – calypso channel number and \_TITAN slot number,
    - (\*\*) Y – ADAT channel of audio interface.
- If I.A.C. will be **ON JUST FOR FIRST CHANNEL**:
  - **Modules on slots 2-8 will be normally accessible as described above,**
  - **HW insert in DAW -> ADAT Y\*\* OUT -> Calypso CH1 D/A (OUT) -> DB-25 OUTPUT ->**
  - **outboard processor -> XLR IN SLOT 1 -> SLOT 1 IN -> SLOT 1 OUT ->**
  - **\_CALYPSO A/D CH1 -> ADAT Y\*\* IN -> HW insert in DAW.**
    - (\*\*) Y – ADAT channel of audio interface.

## 6.6. Usage in standard 500 series chassis.

\_CALYPSO can be of course used in any 500 series chassis. Just insert it on any slot, and use **DB-25 connectors to route the signal!**

*In this approach of course I.A.C. functionality won't work.*



## 7. Software

Software package can be downloaded from <http://www.wesaudio.com/download> by anyone who purchased related HW unit. To check currently supported plugin types and platforms, please follow above link.

### 7.1. Installation

To install WesAudio software package, please visit <http://www.wesaudio.com/download> and download recent version of software.

#### 7.1.1. Windows

Start the installer application, if you will encounter any system warnings about this particular installer, please ignore them\*, then select any components which you would like to install\*\*.

- If this is **FIRST** installation, please unplug all WesAudio devices from your workstation.
- When USB driver will be installed, application will inform that all devices should be connected – **please do so.**
- If USB driver installation is triggered, user will be asked to restart computer. We know that this is unwanted activity, but it is necessary step for USB driver to install with success.
- If computer restart is triggered, this Installer will start again during start up. **If for some reason installer won't be started after the restart, please start same installer manually again.**

#### 7.1.2. OSX

Because OSX architecture and USB devices handling is much simpler in concept, the only thing to note is to have all devices **connected** during install procedure.

Start the installer application, if you will encounter any system warnings about this particular installer, please ignore them \* (sometimes it is necessary to open context menu with “Option” click (or right mouse button) and trigger installation once again).

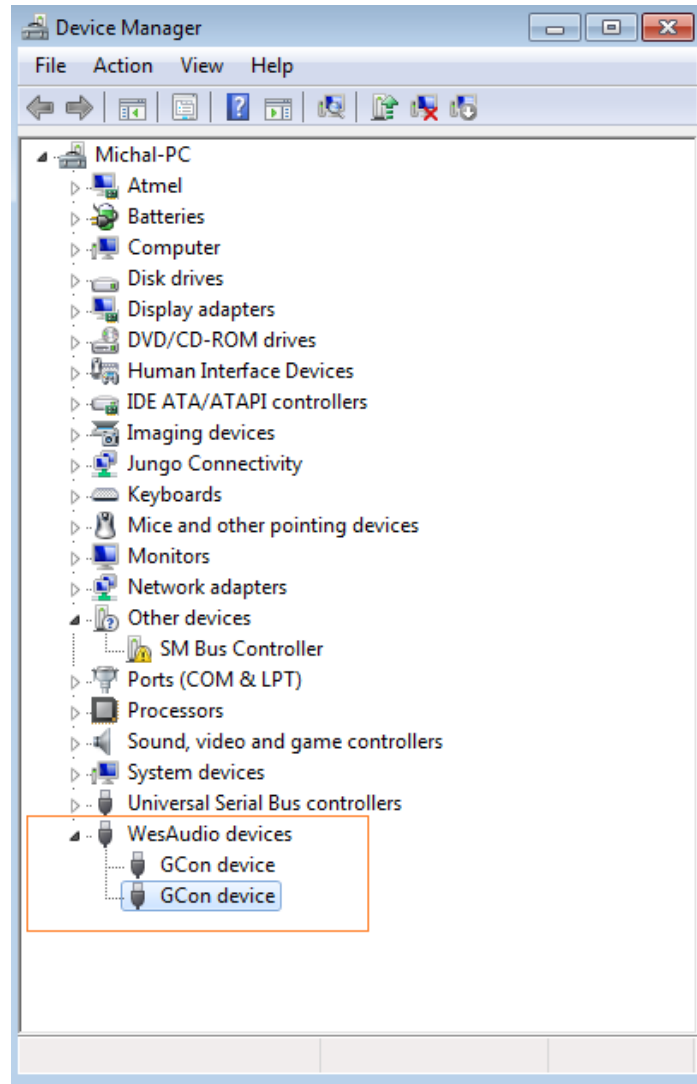
#### 7.1.3. Troubleshooting

If anything would fail during installation procedure please contact our support at [support@wesaudio.com](mailto:support@wesaudio.com). We will get back to you as soon as possible.

Below you can find some symptoms and description which will help to investigate the issue:

“Can’t find my device on plugin drop down menu”

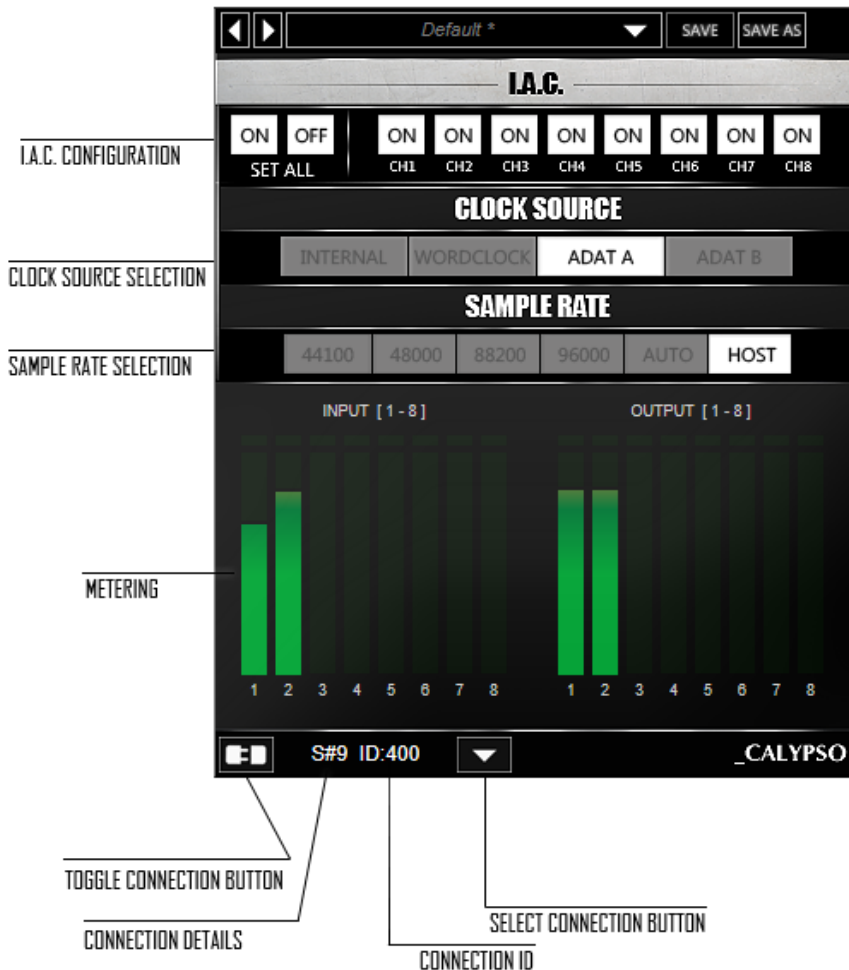
Unfortunately there could be dozens of root causes. On Windows machine it is very important to check if USB device is successfully connected on system level. That can be checked in “Control Panel->System->Device Manager”:



**\*\* Please note that for *WINDOWS* it is necessary to install USB driver which is critical to communicate with HW units. It is required step only during first installation, and this option will be automatically disabled during any software upgrades.**

## 7.2. Plug-in

\_CALYPSO unit can be managed through a dedicated plug-in. Plug-in allows to change any units parameters and visualizes all metering information.



- 1) **Select connection button:** This button shows all connected devices, if “drop-down” list with element IDs is not visible, that means that no devices has been detected which support GCon protocol.
- 2) **Toggle connection button:** Button toggles connection status ON/OFF. Please note that button works only if ID has been previously selected using “Select connection button”.
- 3) **Connection details:** Additional connection information:
  - a. **USB** – module has been connected through direct USB connection in front panel.
  - b. **S#X** – Slot number which is functionality available in \_Titan frame, and means that internal connection protocol between module and Frame is engaged.



**NOTE: This fields shows also connection status:**

- c. **ON – Font WHITE/Style: NORMAL:** Connection is established.
  - d. **OFF – FONT GRAY/Style: NORMAL:** Connection is NOT established.
  - e. **Connecting FONT GRAY/Style: ITALIC –** Connection process is ongoing. If “Connecting” state is visible for longer period of time (more than 5 seconds), and plugin has no control over the unit, that would mean:
    - i. HW unit is no longer connected to your Workstation.
    - ii. HW unit was disconnected or detached by operating system for some reason.
    - iii. Any other reason which should be consulted with [support@wesaudio.com](mailto:support@wesaudio.com).
  - f.
- 4) **Connection ID:** Unique Connection ID of connected HW unit.
  - 5) **Metering:** Show channel current meter status on IN and OUT. Please note that in Mid-Side metering shows status of MID and SIDE channel respectively.
  - 6) **Sample Rate Selection:** Please refer to chapter: [Sample Rate](#).
  - 7) **Clock Source Selection:** Please refer to chapter: [Clock source](#).
  - 8) **I.A.C. Configuration:** Internal Audio Connector on \_TITAN chassis configuration. It can be managed:
    - a. Separately for each channel (buttons ch1 to ch8),
    - b. Or all channels at the same time using “SET ALL” button.

For more information about I.A.C. connector, please refer to chapter: [I.A.C. – internal audio connector](#).

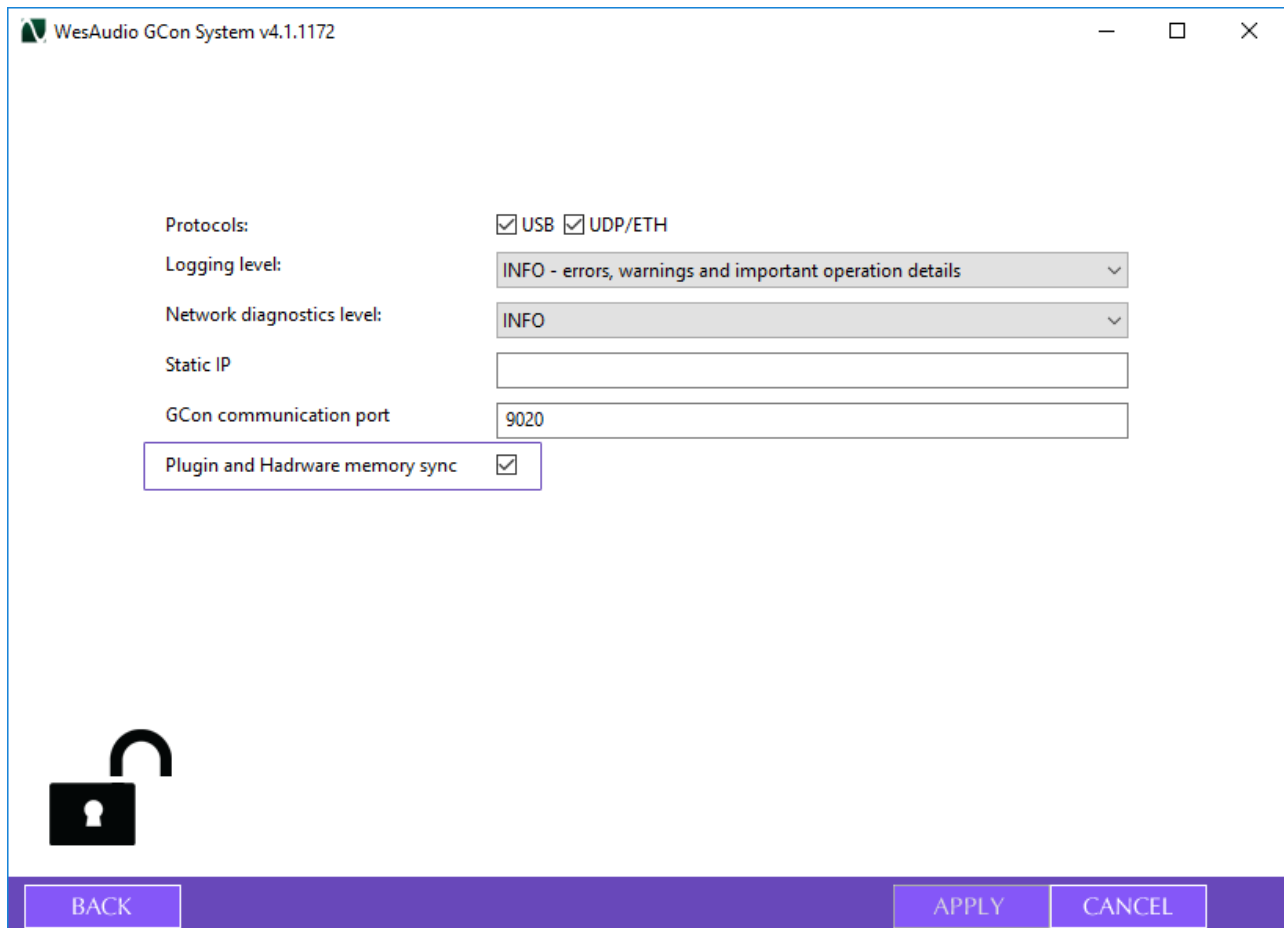
## 7.3. Memories

### 7.3.1. Synchronization upon connection

When new plugin instance is loaded into DAW, its state is unmodified, that means that no parameters are yet modified. When user will initiate connection to hardware unit by setting Connection ID, Plugin will download current state of parameters from the unit including any available fast configuration presets. So for instance, if connection between \_PROMETHEUS plugin and \_PROMETHEUS hardware will be triggered, and plugin will be in unmodified state, all parameters states will be downloaded to the plugin, including \_PRESET\_A and \_PRESET\_B states.

### 7.3.2. Memory synchronization between plugin and hardware

In general there two modes of operation which can be modified through GConManager/\_SETTINGS application: synchronization enabled, and synchronization disabled.



### 7.3.2.1. *Synchronized memory enabled*

This is default setting enabled through “Plugin and Hardware memory sync” option, and it causes direct link between unit and plugin memory. In this case, when plugin is connected with a hardware, all parameters including number of fast presets which unit can store (e.g. A/B) will be synchronized. So when plugin will be disconnected (through manual toggle button hit, DAW session close, etc.) all hardware configuration will remain unchanged.

### 7.3.2.2. *Synchronized memory disabled*

In this case, plugin works as separate form of persistence implementation. That means if HW unit is connected to work with the Plugin, all settings from Plugin are applied to the device (or from the hardware to the plugin), however unit configuration will get back to previous state when Plugin will initiate disconnection (through connection toggle button, session close etc.) . So in practice HW unit internal memory isn't affected by the software at all. This functionality can be useful if user needs to switch often between different modes, for example session needs to be recalled, but unit is used during production activities without any session loaded (then unit can be easily recalled through session load, and when session is closed, unit will go back to the state before the recall had happened).

## 7.4. Multi Host Support

Devices connected through direct (front panel) USB cable will be detected in one HOST application at the same time. First HOST application which will start any WesAudio plugin will enable GCon communication engine, and from now on it will serve as a master. Master application opens all available WesAudio units and keeps all device handles for communication purposes. That activity will prevent other HOST applications started at the same time to communicate with WesAudio units using direct USB connection. Such situation may happen in practice when two different hosts are started at the same time and connected through ReWire interface, in that approach only one host can serve as plugin host for WesAudio products.

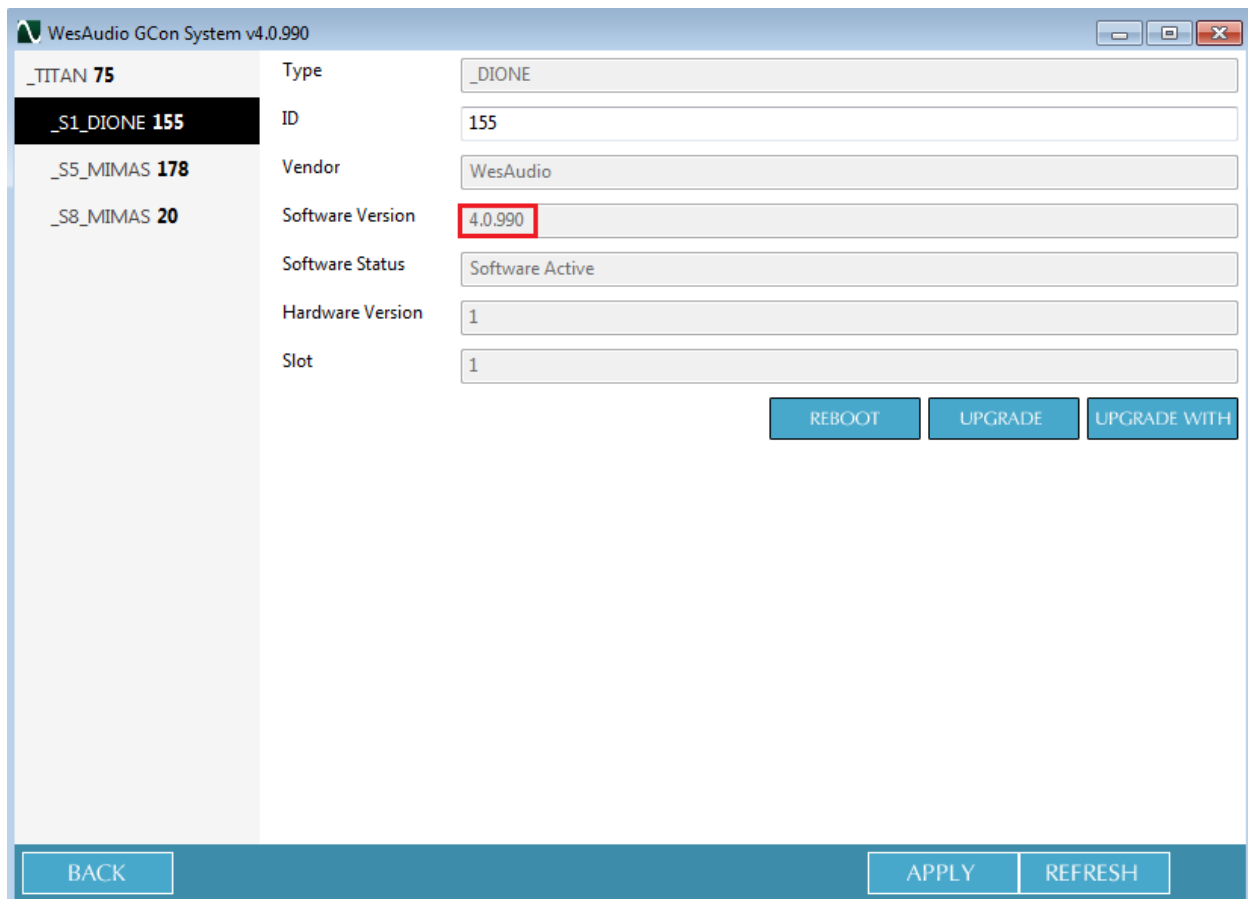
## 7.5. GCon Manager

GCon Manager is generic application which implements configuration management over compatible units. It can be found in Application folder data:

- For OSX: “/Applications/WesAudio/GConManager”
- For WINDOWS: folder specified during installation phase, by default in: “c:/Program Files x86/WesAudio/GConManager.exe”.

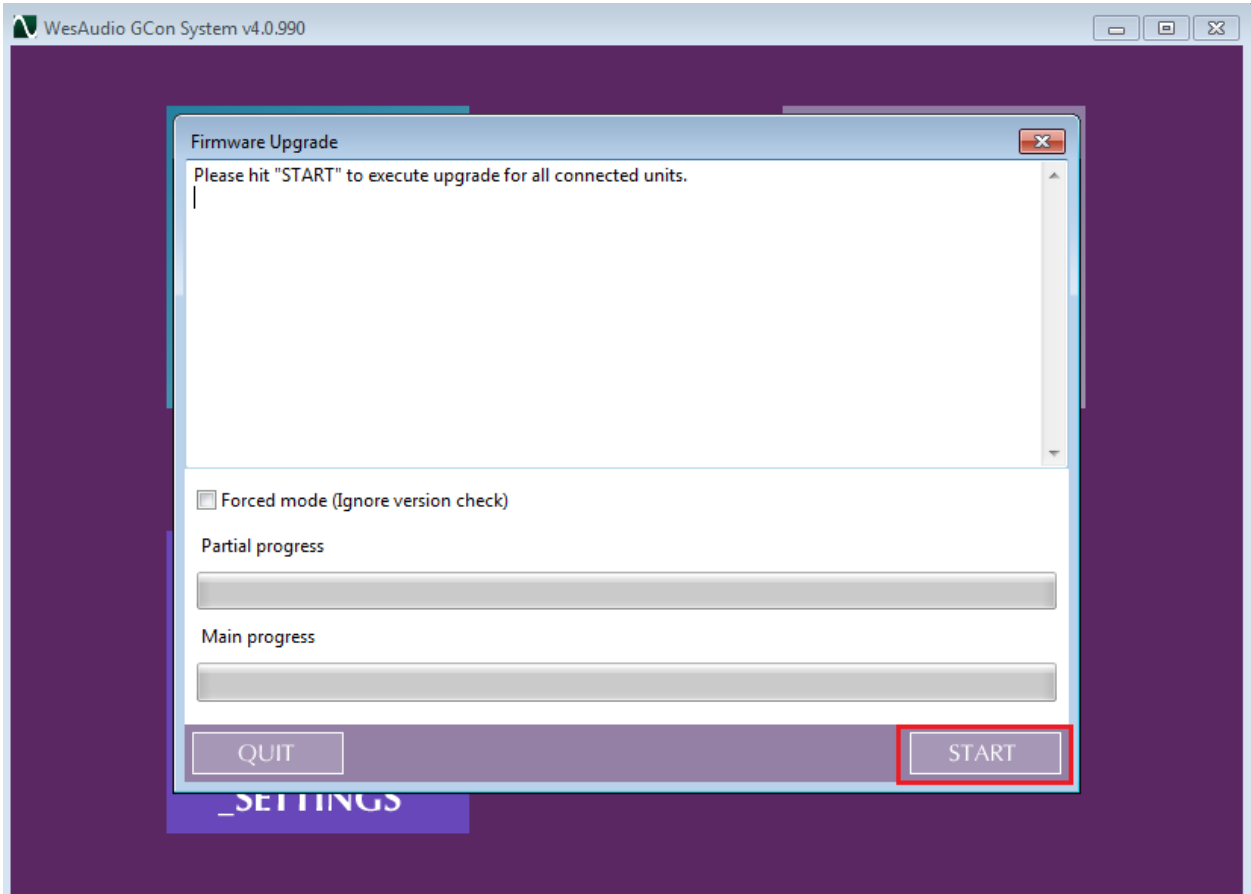
### 7.5.1. How to check firmware upgrade.

Each device reports to your workstation with particular version, which indicates compatibility between your host application, and remote module. To check firmware upgrade please to GCon Manager CONFIG application:



### 7.5.2. How to perform firmware upgrade.

To perform firmware upgrade go to GConManager upgrade and hit "Start" button. This will trigger upgrade operation for all modules which are not up to date with your host software.



## 8. Abbreviations and terms

GCon – high speed communication protocol which allows full management and recall of analog devices. Please note that this is just management protocol, audio signal transfer is not in scope of its capabilities.

NG500 – Next generation 500 series.

NG500 connector – special connector which extends standardized 500 series connector with additional pins.

## 9. Warranty

All WesAudio products are built to the highest standards and should provide reliable performance for many years, subject to reasonable care, use, transportation and storage.

**WesAudio warrants all of our products to be free of defective parts and workmanship for a period of two years.**

This warranty period begins at the original date of purchase and is transferable to any person who may subsequently purchase the product during this time. This warranty excludes the following conditions: normal wear and tear, misuse, customer negligence, accidental damage, unauthorized repair or modification, cosmetic damage and damage incurred during shipment. During the time of this warranty, WesAudio will repair or replace, at its option, any defective parts or repair defective workmanship without charge, provided the customer has appropriate proof of purchase and that the product has its original factory serial number. In all warranty claims the customer is responsible for shipping costs to the WesAudio facility, and WesAudio pays for return ground shipping.

## 10. History

<b>Editor</b>	<b>Version</b>	<b>Date</b>	<b>Description</b>
Michal Weglicki	<b>V1</b>	<b>23.07.2019</b>	<b>Document created.</b>