ORIA

Immersive Audio Interface
& Monitor Controller

Manual V1

AUDIENT

Welcome to ORIA, your gateway into the world of immersive mixing.

Designed to sit seamlessly between your DAW and your speakers, ORIA provides a platform to control up to 20 outputs with an efficient combination of hardware and software. Whether you are monitoring in 9.1.6 immersive, 7.1 surround sound, stereo or even Mono, ORIA is flexible and powerful enough to handle a plethora of contemporary audio standards.

Designed with professional users in mind, and working with industry-leading partners, Dolby(™) and Sonarworks(™), ORIA's onboard DSP allows you to calibrate your speakers to your room and deliver mixes that translate to the real world with confidence.

ORIA - Immersive, made easy.

Declaration of Conformities

FCC Part 15B

This apparatus has been tested and found to comply with the limits of a class-A digital device, pursuant to Part 15B of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1   Re-orient or relocate the receiving antenna

2   Increase the separation between the equipment and receiver

3   Connect the equipment into an outlet on a different circuit from that to which the receiver is connected

4   Consult the dealer or an experienced radio/TV technician for help

Officially Certified

◗◖ Dolby Atmos

Dolby, Dolby Atmos, Dolby Audio, and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporations.

FC

We, Audient Ltd, Aspect House, Herriard, Hampshire, RG25 2PN, UK, 01256 381944, declare under our sole responsibility that the product ORIA complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions:

1.   This device may not cause harmful interference,
2.   This device must accept any interference received, including interference that may cause undesired operation

CE

We, Audient Ltd, declare that the product, the ORIA, to which this declaration relates, is in material conformity with the appropriate CE standards and directives for an audio product designed for consumer use.

UKCA

We, Audient Ltd, declare that the product, the ORIA, to which this declaration relates, is in material conformity with the appropriate UKCA standards and directives for an audio product designed for consumer use.

RoHS

Audient Ltd has conformed where applicable, to the European Union's Directive EN 63000:2018 on Restrictions of Hazardous Substances (RoHS) as well as the following sections of California law which refer to RoHS, namely sections 25214.10, 25214.10.2, and 58012, Health and Safety Code; Section 42475.2, Public Resources.

Under an environment with electrostatic discharge, the device may cease to output sound (EUT could not operate properly). This requires the user reset the device by unplugging & re-connecting to host computer.

As a device that provides power to other equipment power management features are inappropriate for this product.

METI
Ministry of Economy, Trade and Indu

We, Audient, declare that the product, ORIA, to which this declaration relates, is in material conformity with the appropriate PSE standards and directives for an audio product designed for consumer use. METI Ordinance Appendix 12 J55032(H29).

PSE

IEC 62368 Test Report with Japan deviation.

⚠ WARNING : This product can expose you to BPA and other chemicals which are known to the State of California to cause cancer and/or birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.
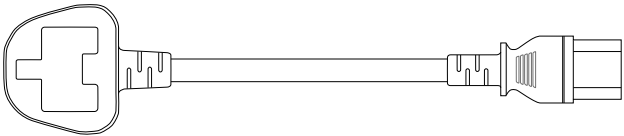
Installation & Setup

What's In The Box

1. 1 x ORIA Unit

2. 1 x Mains Power Cable

3. 1 x USB C-C Cable

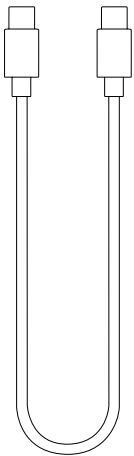4. 1 x Sonarworks (™) SoundID Reference Measurement Microphone
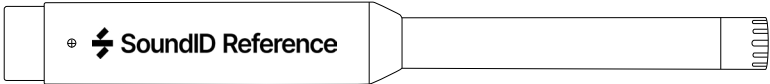
1

2

3

4

Initial Setup

Unpack your ORIA, plug in the included power cable and connect it to a USB port on your computer. If your computer doesn't have the appropriate USB port you may need to use a third party cable.

Use ORIA's Control Wheel to navigate through the front panel screen and take control of Motion UI. Press the Control Wheel to confirm selections or toggle through options provided by specific buttons.

Motion UI Front Panel   Control Wheel   Function Button
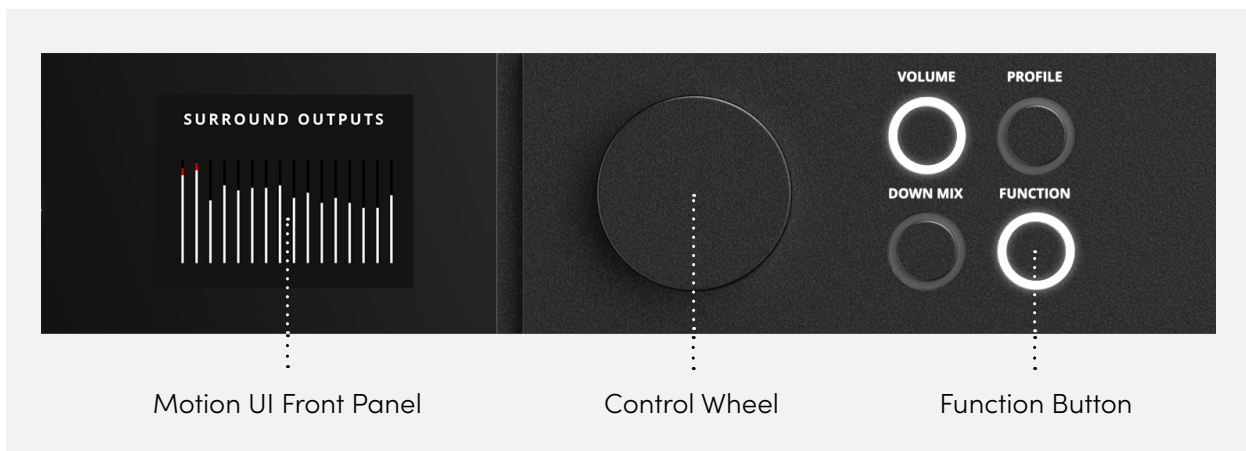
Once powered up you will be asked to set the screen brightness with the Control Wheel (push to confirm), and then select which feature the Function Button controls – DIM, Return to Reference, Talkback or Polarity Reverse – by scrolling to your preferred choice and pressing confirm. Scroll to 'Finish' and press the Control Wheel again to complete the initial setup.
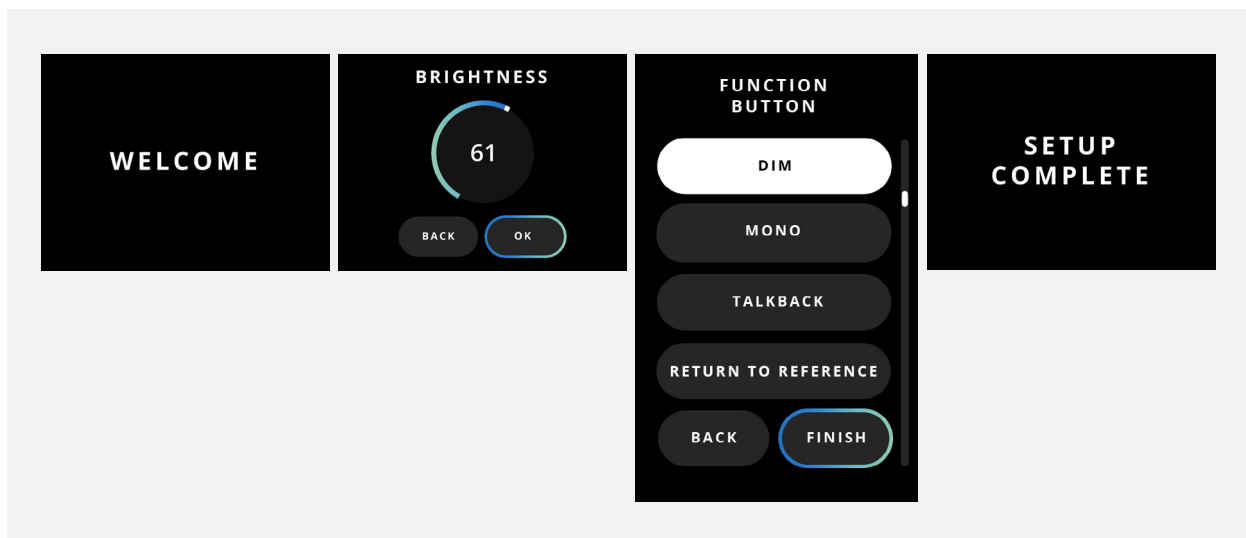
Mac Installation

On macOS, ORIA will work straight away without needing to install any drivers. However, we do strongly recommend installing the ORIA Desktop App, which gives you advanced control over your ORIA and lets you update your firmware when required.

Head to audient.com/ORIA/downloads to download the latest version of the application. Once downloaded, simply open the .dmg file and then drag and drop the ORIA Desktop App into your applications folder.
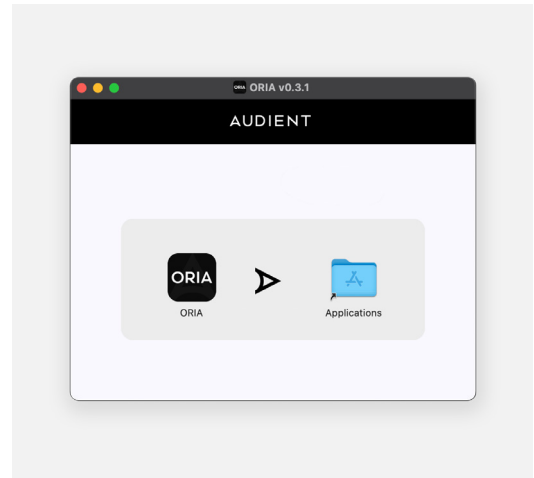
Windows Installation

ORIA will require drivers to work on Windows to ensure your computer and ORIA will work together correctly. You can download the drivers from the ORIA website: audient.com/ORIA/downloads. Once downloaded, run the .exe file to start the installation process.

Follow the instructions on screen to complete the installation. This process may take a little while so please be patient. Once complete, click 'Finish'.
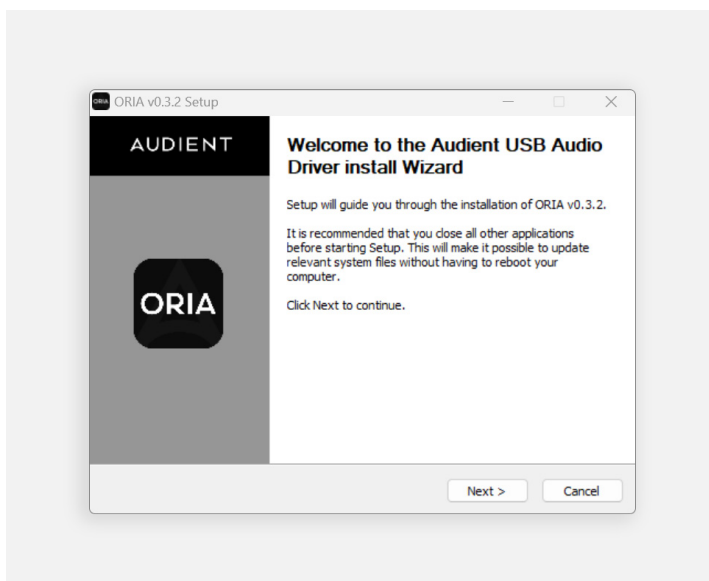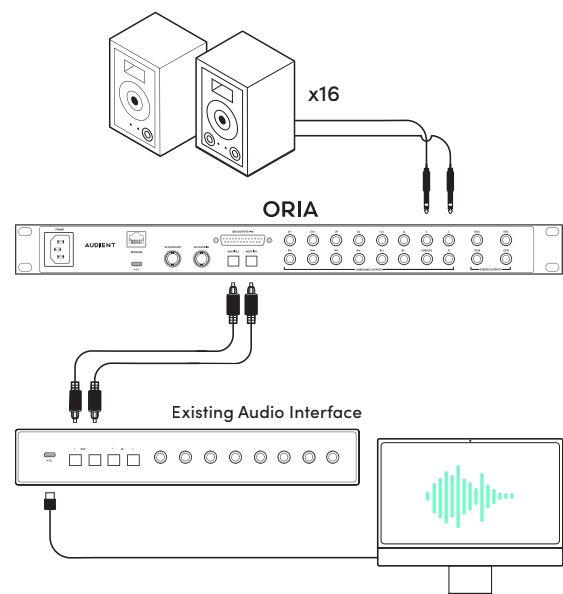
Using ORIA as a Standalone Monitor Controller

ORIA is designed to function either as your computer's Audio Interface or as a Standalone Monitor Controller to provide immersive monitoring and calibration functionality to your workflow.
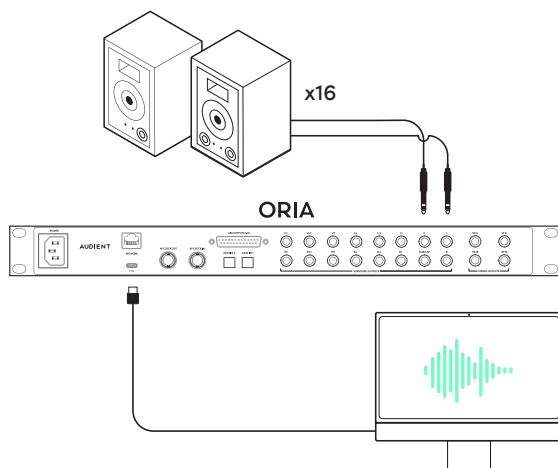
As an Audio Interface & Monitor Controller

As a Standalone Monitor Controller

When being used as a Standalone Monitor Controller, ORIA can take audio from either its ADAT input or via the Optional Dante Card using the Input source control of the ORIA software. You will still need to connect ORIA to the computer via USB initially in order to create your Profiles using the ORIA Desktop App and store them on ORIA.

We would recommend keeping the unit connected to the computer via USB even when being used as a standalone Monitor Controller, as this allows for remote control of the unit using the ORIA Desktop App, or ORIA iPad App. **Whilst not currently available, the ORIA iPad App will be available in the near future.**

After setup, ORIA can be used without the USB connected if required, however, to change profiles or make adjustments to your monitoring level, you would need to use the controls on the front panel of the interface.

Registration with Audient ARC

ORIA comes bundled with a collection of professional software and services, giving you everything you need to start recording from some of the industry's leading innovators.

Go to arc.audient.com, select 'Register Your Product' and enter your details to create an account. You will then receive a verification email to your Inbox but you may need to check your Spam/Junk folders. Once you've verified your account, register your ORIA by entering the serial number and the unique 4-digit PIN found on the underside of ORIA.

Now the product is registered, you can select from a wide array of free software and plugins, giving you easy access to powerful creative tools straight away.

Firmware Update Procedure

Occasionally, Audient will release new firmware for ORIA to add additional features and to ensure ongoing compatibility with Operating System updates.

Provided it has internet access, the ORIA Desktop App will periodically check if any new firmware updates are available and inform you if there are any. You can also check for updates at any time by going to the menu bar, and selecting:

Help > Check for Updates

If an update is available, the ORIA control app will notify you. Click 'OK' to begin the firmware update process.
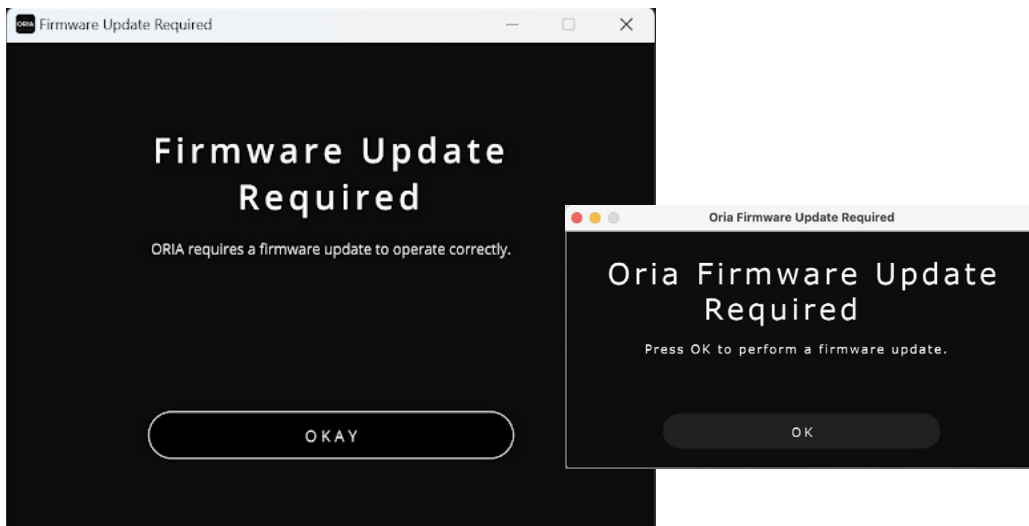
The ORIA Desktop App will then launch the Audient Firmware Upgrade software. In this software, you will see a list of all Audient devices currently connected to your computer. Select ORIA from the device list.
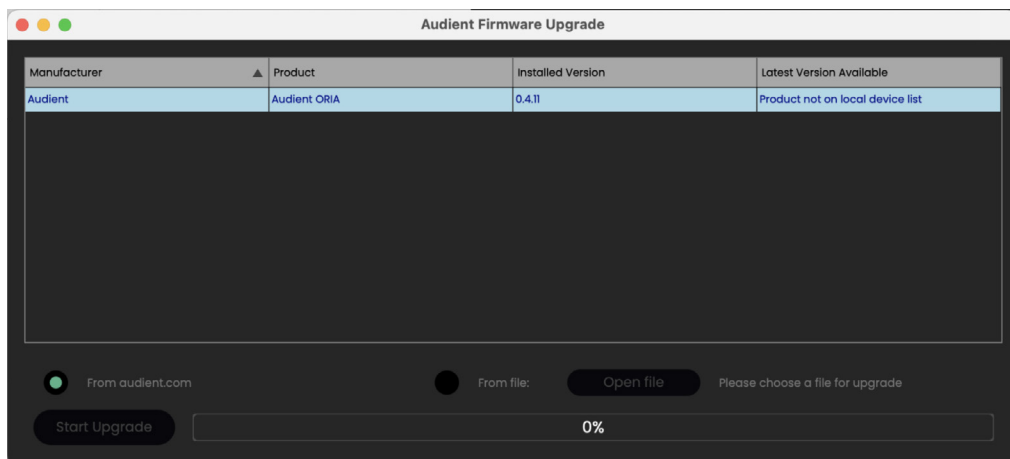
You can now choose to update from audient.com or from a local file. If your computer has an internet connection you would want to select 'From audient.com' to ensure you are installing the latest firmware version.

If your computer does not have an internet connection, please contact support@audient.com and our team will be able to provide you with the latest firmware file to install locally.

Now you can Click 'Start Upgrade' and the progress bar should begin to increment. During the update process, the ORIA unit may restart multiple times.

Once complete, a notification will appear to confirm the update has been installed. You can now close the Audient Firmware Upgrade Window and continue using your ORIA.
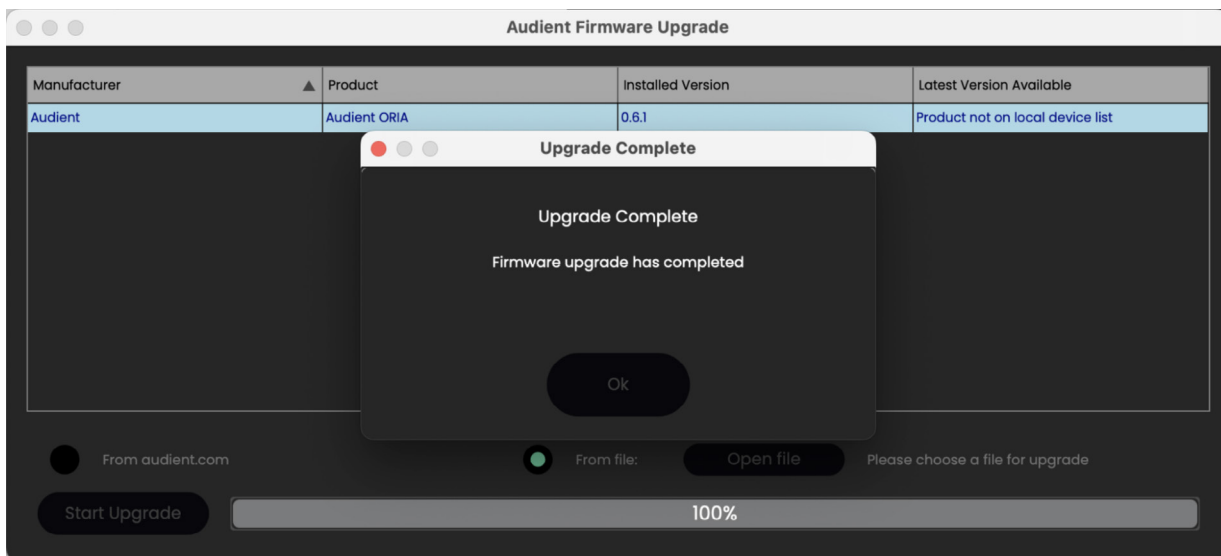
Hardware Features

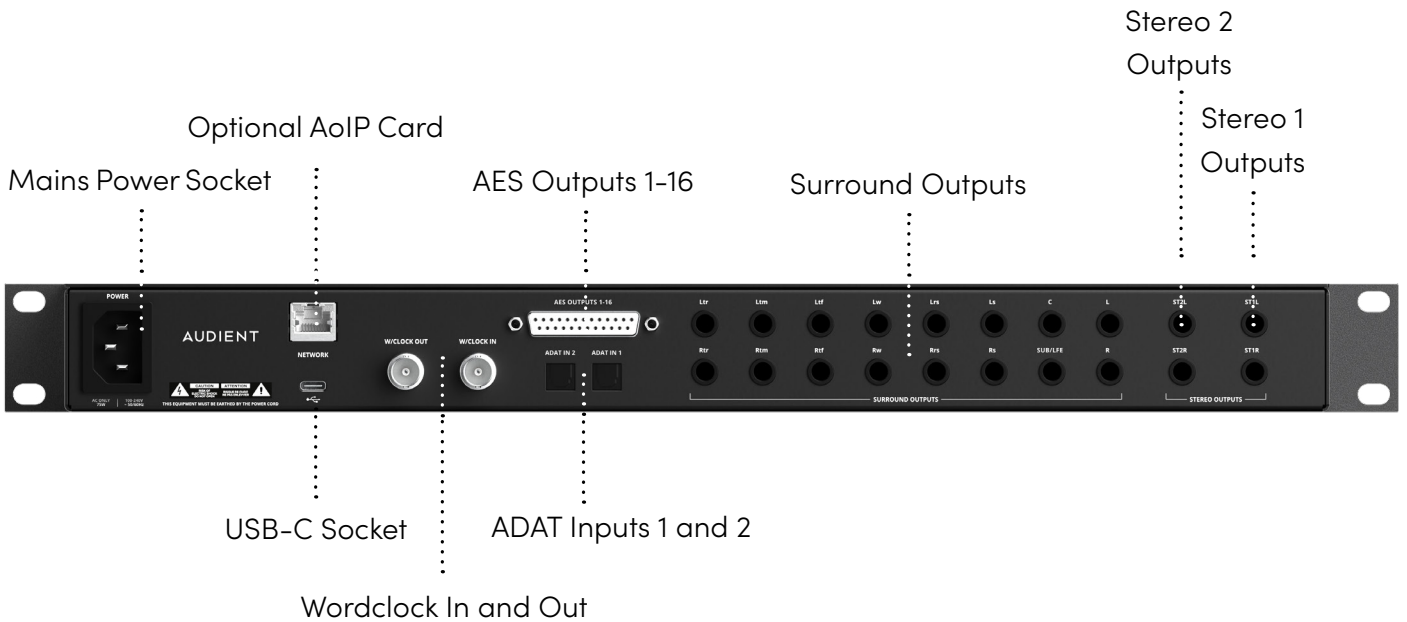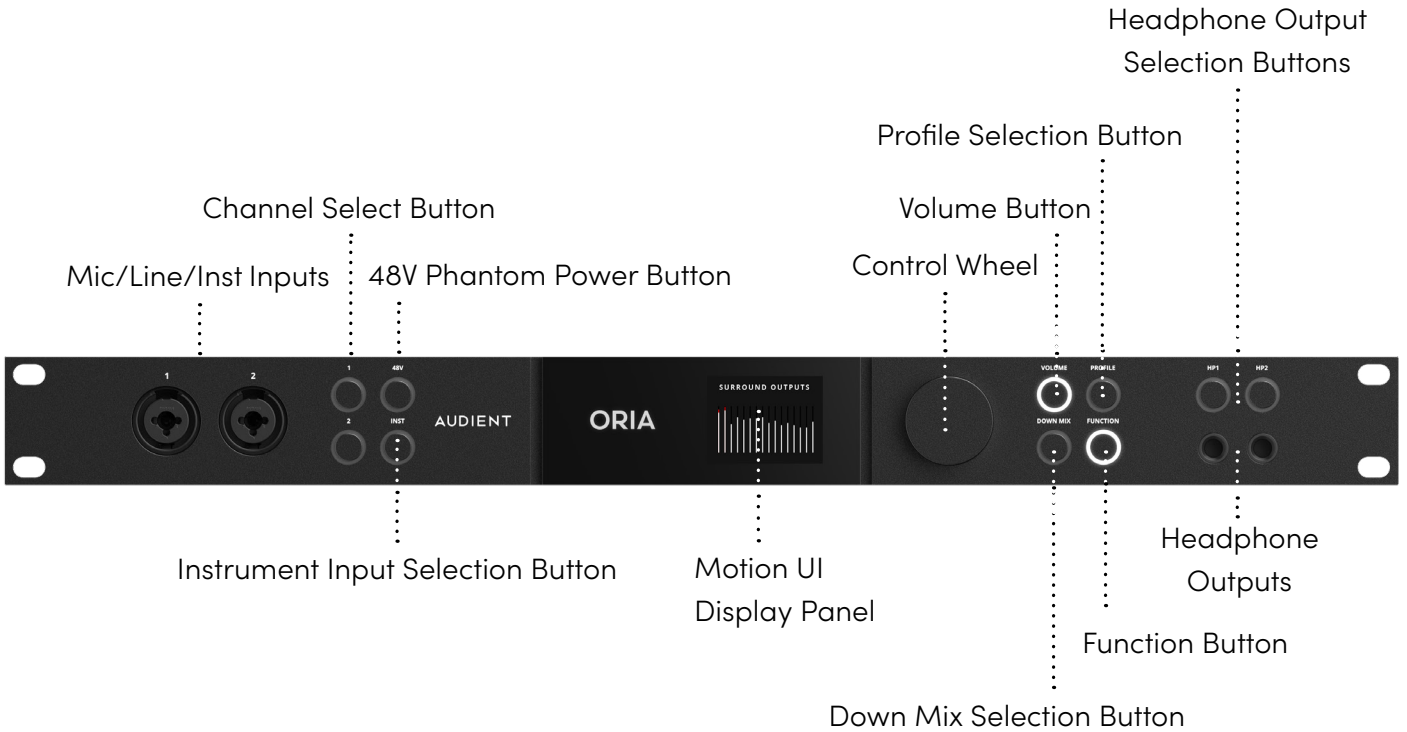# Hardware Features

Headphone Output
Selection Buttons

Profile Selection Button

Volume Button

Control Wheel

Channel Select Button

Mic/Line/Inst Inputs   48V Phantom Power Button

SURROUND OUTPUTS

ORIA   AUDIENT

VOLUME   PROFILE   HP1   HP2

DOWN MIX   FUNCTION

Instrument Input Selection Button

Motion UI
Display Panel

Headphone
Outputs

Function Button

Down Mix Selection Button

Stereo 2
Outputs

Stereo 1
Outputs

Optional AoIP Card

Mains Power Socket   AES Outputs 1–16   Surround Outputs

POWER

AES OUTPUTS 1-16

AUDIENT

NETWORK

W/CLOCK OUT   W/CLOCK IN

ADAT IN 2   ADAT IN 1

Ltr   Ltm   Ltf   Lw   Lrs   Ls   C   L   ST2L   ST1L

Rtr   Rtm   Rtf   Rw   Rrs   Rs   SUB/LFE   R   ST2R   ST1R

SURROUND OUTPUTS   STEREO OUTPUTS

AC 230V
...
THIS EQUIPMENT MUST BE EARTHED BY THE POWER CORD

USB-C Socket   ADAT Inputs 1 and 2
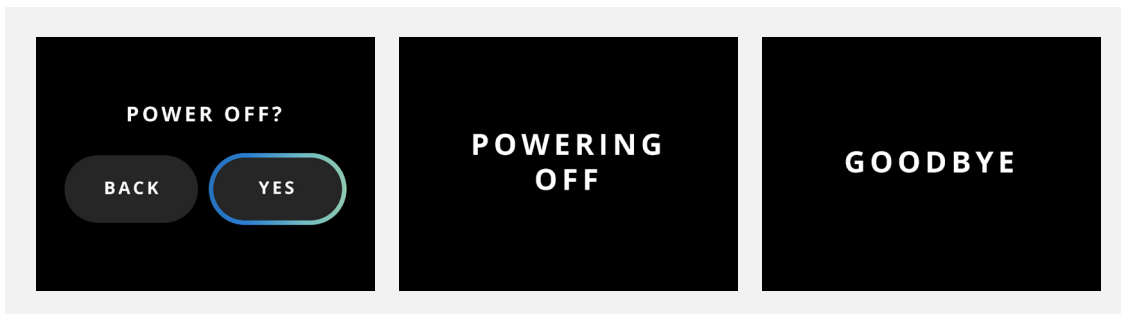
Wordclock In and Out

ORIA Settings

When you press and hold the Control Wheel you can access a variety of global settings for ORIA. Use the Control Wheel to cycle through the options.
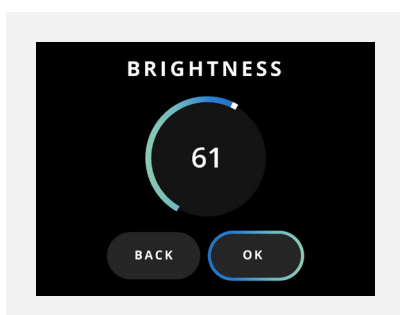

Control Wheel

Power

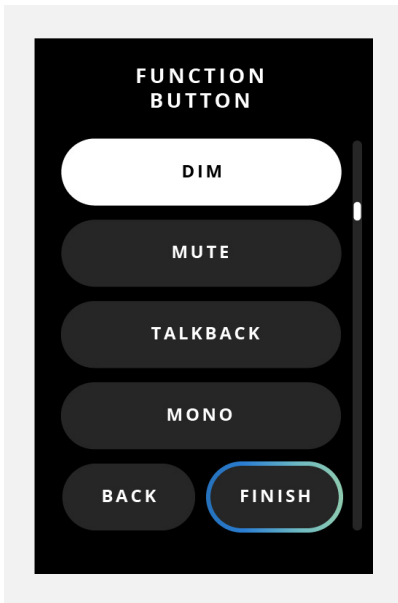Choose to switch off the ORIA (press the Control Wheel to power on the ORIA).

Brightness

Control the overall brightness of all LED's and the display panel.
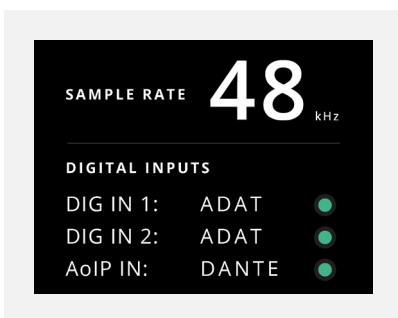
Function

Change what feature is assigned to the 'Function Button':

Status

Check the current sample rate and clocking sources. If the status light is:

- **Green** – this means that the unit has been successfully clocked
- **Amber** – the unit has detected a clock signal but at the wrong sample rate
- **Red** – no clock signal is detected

AOIP

Check the status of the networked audio connection (Active or Unactive) and your ORIA's IP address.
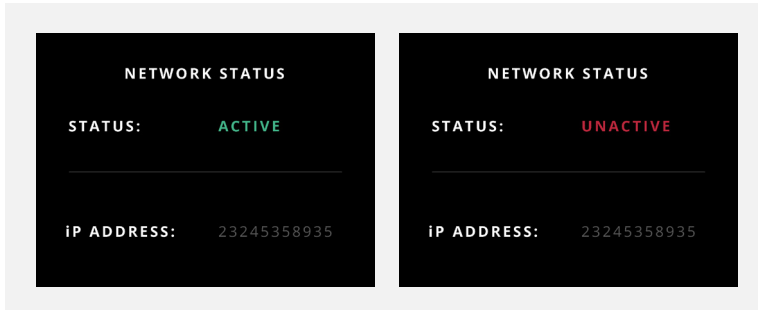
Factory Reset

Restore the ORIA to its factory settings.
Be aware that this will remove any of your currently saved settings and Profiles.

Mic Preamps

The ORIA features two Audient Console Mic Preamps that can deliver up to 60db of gain, as well as receiving Line and Instrument level sources via the front-facing combi-jacks.

When you press either of the 1 or 2 buttons you can then affect settings for each input independently.

Mic/Line/Inst Inputs 1 & 2

Channel 2 Select Button

Channel 1 Select Button
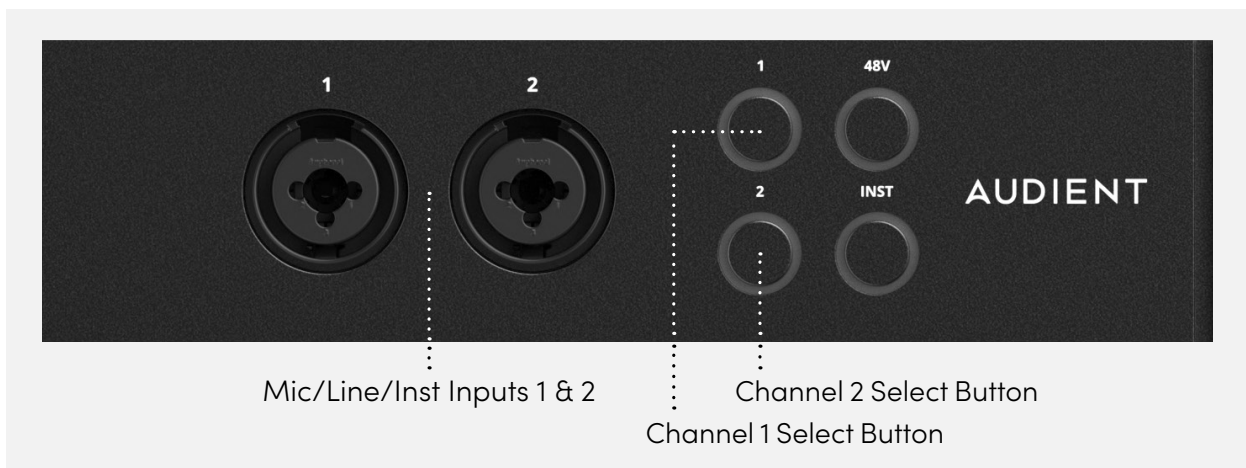
Gain

Turn the Control Wheel to adjust the input gain. The XLR input is received at Mic level whilst the TRS input is received at Line level.
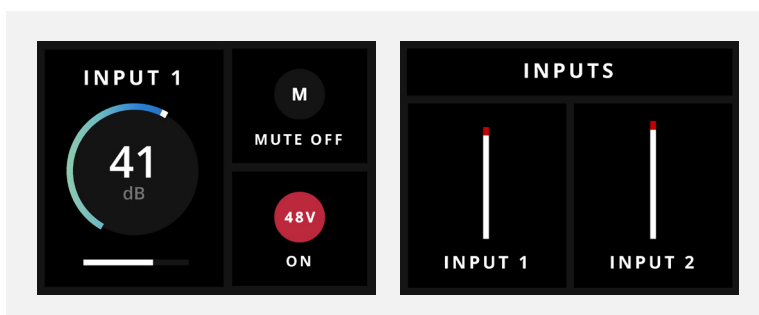
Phantom Power

Press 48V to apply Phantom Power. The LED will turn red to indicate Phantom Power is now active on the selected Mic Preamp Channel.
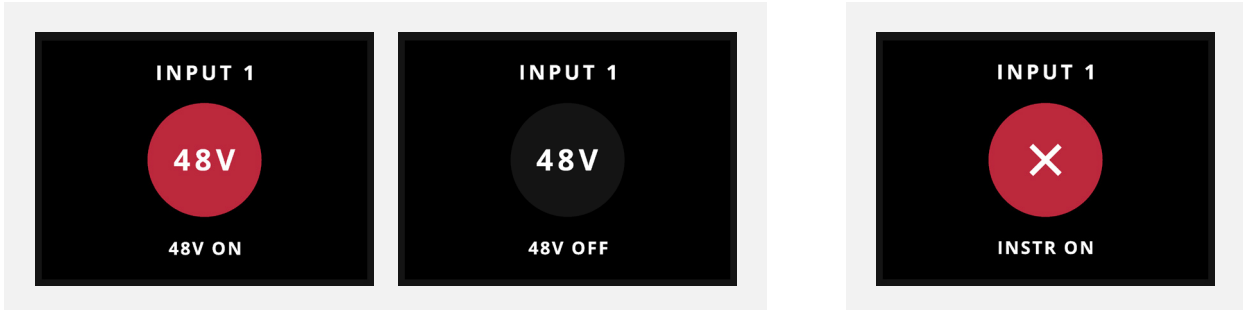
Phantom Power can only be applied to the XLR input, this to prevent accidental damage to external instrument sources. Phantom Power will be blocked if the channel is using Instrument Mode.

Mute

Hold down the respective channel button to mute/un-mute its input. The button's LED will flash white whilst the channel is muted.
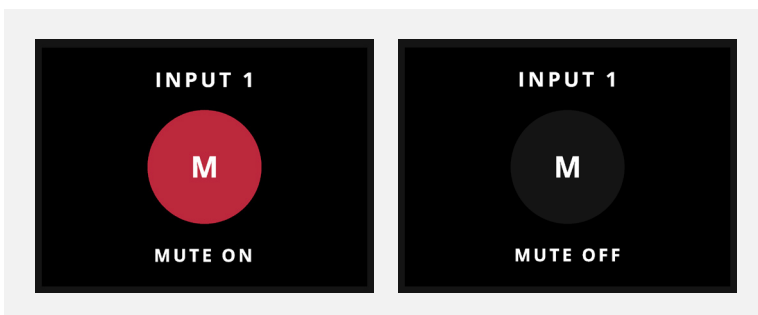
Instrument Input

Pressing INST switches the preamp to accept high impedance/instrument levels via the JFET Instrument Input.
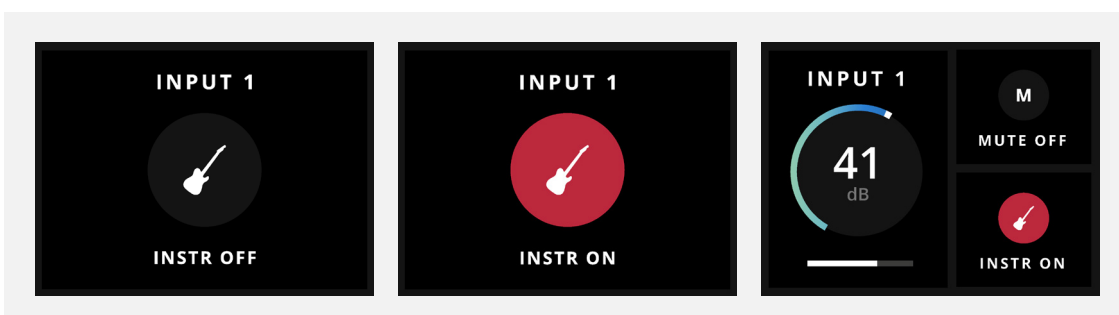
Speaker Monitoring

You can quickly access a variety of monitoring options from the front panel.

Volume

Turn the Control Wheel to adjust the Volume for your chosen speaker configuration.
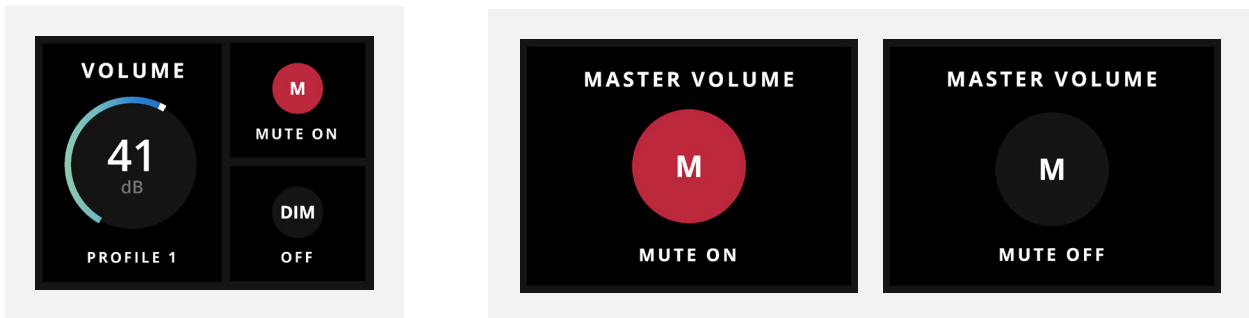
When the Main Outputs are selected, hold down the Control Wheel to mute or un-mute the main outputs. The LED will flash white whilst the main output is muted.

Profile

Toggle between your four 'favourite' speaker configurations by tapping the 'Profile' button. Press and hold the button to access the full list of profiles and use the Control Wheel to cycle through Profiles.
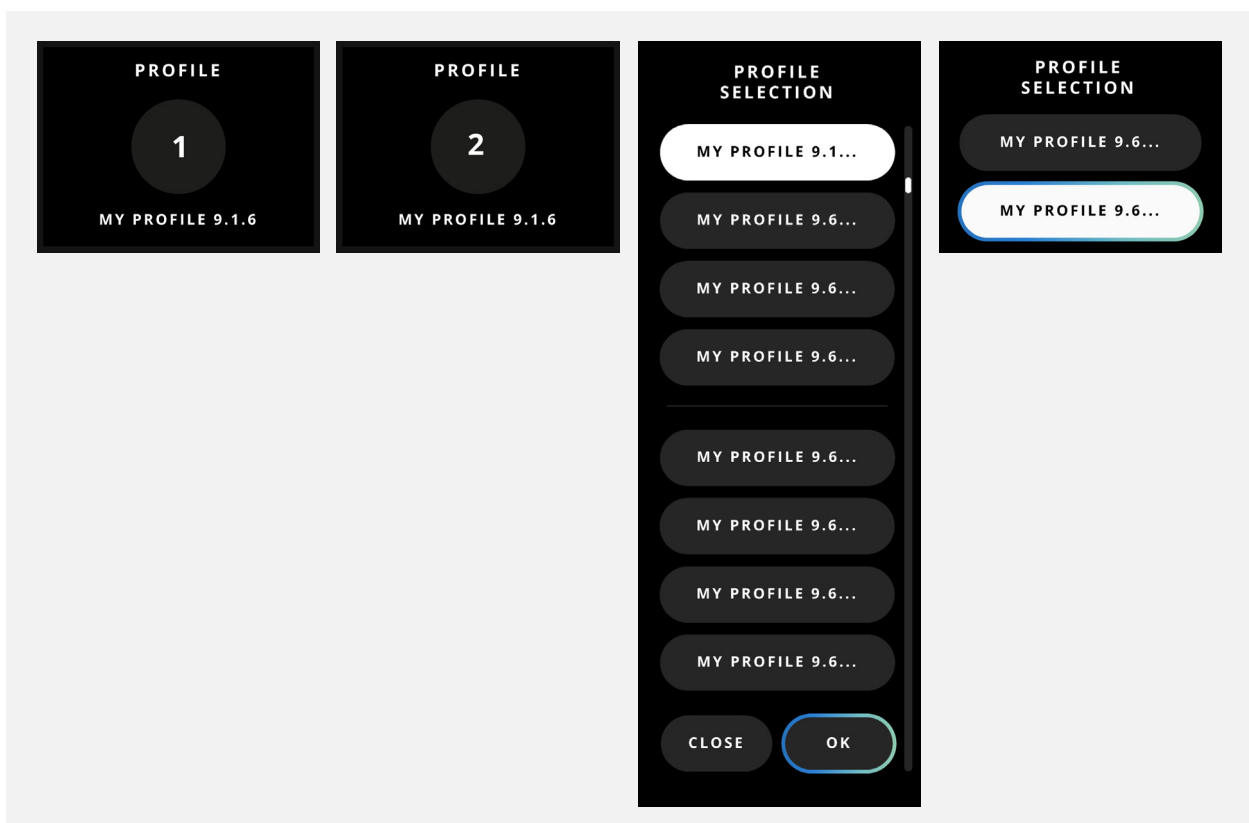
Down Mix

Control the Standalone Dolby(™) Renderer's Down Mix functionality directly from ORIA's front panel. The Down Mix button will toggle through the different Output options available.

This feature is only available if you are connected to the Dolby(™) renderer. An error message will appear if this is not the case.

Function

Toggle on/off a pre-selected monitoring process via the 'Function Button'. The function of this button can be adjusted in the ORIA Desktop App and is explained later in this manual.

- **Polarity** - to check the phase coherence of your stereo mix.
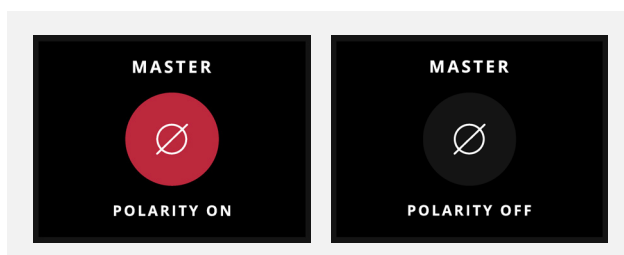
• **Return to Reference** – When assigned to the Function Button the Return to Reference (RTR) feature will return the Outputs Volume to the reference level stored as part of the Active Profile. For example if your Profiles reference level volume is –20dB, however you are currently monitoring at –15dB, you can use RTR to quickly snap back to –20dB precisely. This will be shown on ORIA's front panel screen in the System Menu.
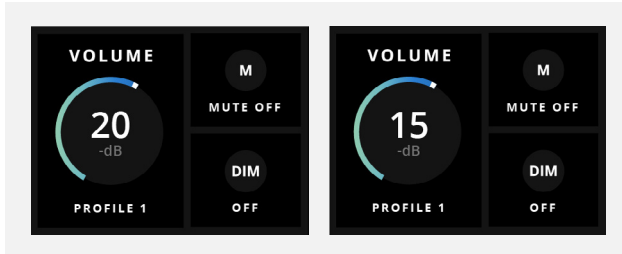
The Function button will also illuminate and remain illuminated to indicate that you are currently listening at Reference Level.

• **DIM** – lowers the volume of your main outputs. The level of reduction can be changed in System Mode of the ORIA Mixer Application.
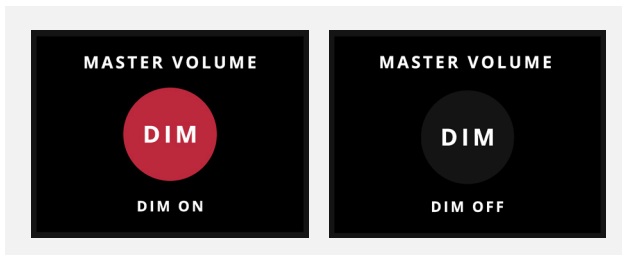
• **Talkback** – feeds the chosen mic signal into the headphone outputs for communicating with performers. See the System Mode for more information.
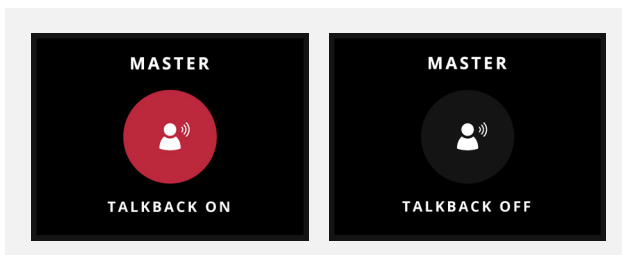
• **MONO** - outputs a mono-summed version of your stereo mix to check mono-compatibility.

MASTER	MASTER	MONO
○	○	✕
MONO ON	MONO OFF	NOT AVAILABLE
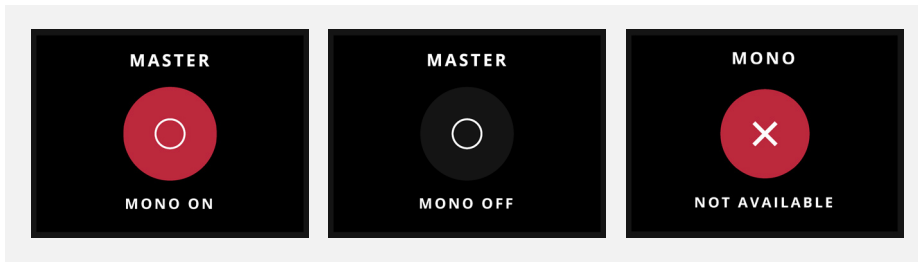
Headphone Monitoring

ORIA provides two independent outputs for headphone monitoring, either whilst recording or mixing. Each output can be fed from a variety of sources via the System Panel in the ORIA Desktop App.

Volume

Turn the Control Wheel to adjust the Volume for the select headphone output.

HP 1	M
41 dB	MUTE ON
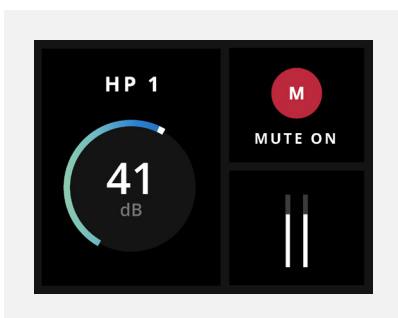
If you hold down the respective button you can mute/un-mute the headphone output and the LED will flash white whilst the output is muted.

HEADPHONE 1	HEADPHONE 1
M	M
MUTE OFF	MUTE ON
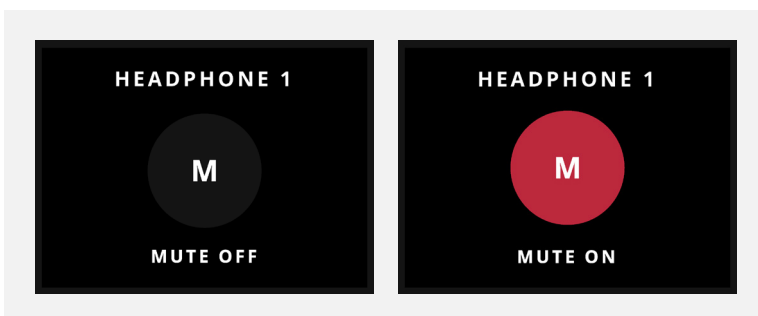
Metering

You can toggle through all of ORIA's output meters (Surround, Headphone 1, Headphone 2, Stereo, ADAT or AoIP) by pressing the Control Wheel.

The display panel will default back to metering the outputs of your chosen speaker configuration after 3 seconds without hardware interaction.
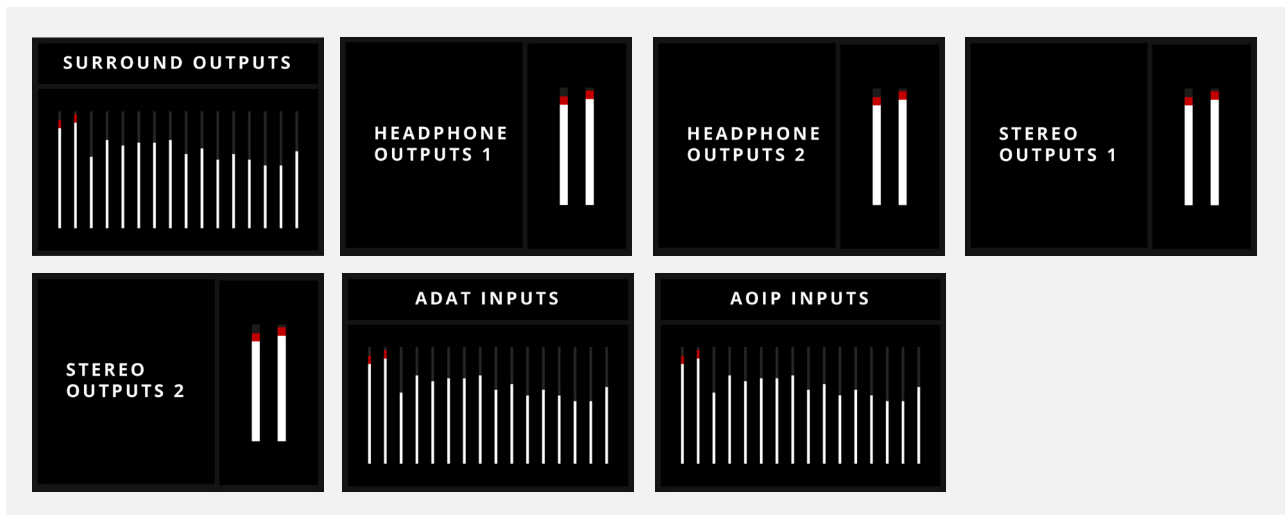
Any surround configurations that use less than 16 channels will have any unused channels greyed out.
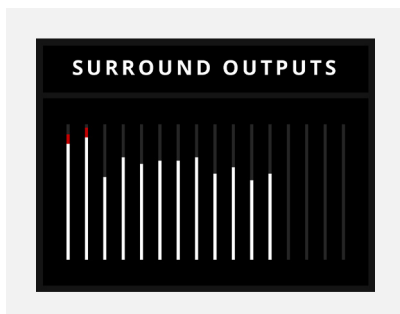
You can meter Inputs 1 & 2 by pressing the corresponding Channel Select Button and then pressing the Control Wheel.
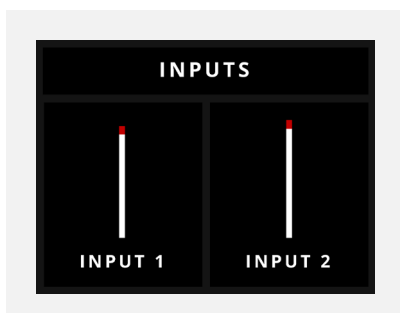
Connectivity

Stereo Outputs

ORIA provides two identical, balanced* stereo outputs (ST1 and ST2) to feed your chosen stereo speakers. These outputs are relay-switched from the Stereo channels of the surround outputs.

Surround Outputs

The ORIA also provides a comprehensive selection of balanced* surround outputs to feed your chosen speaker configuration.
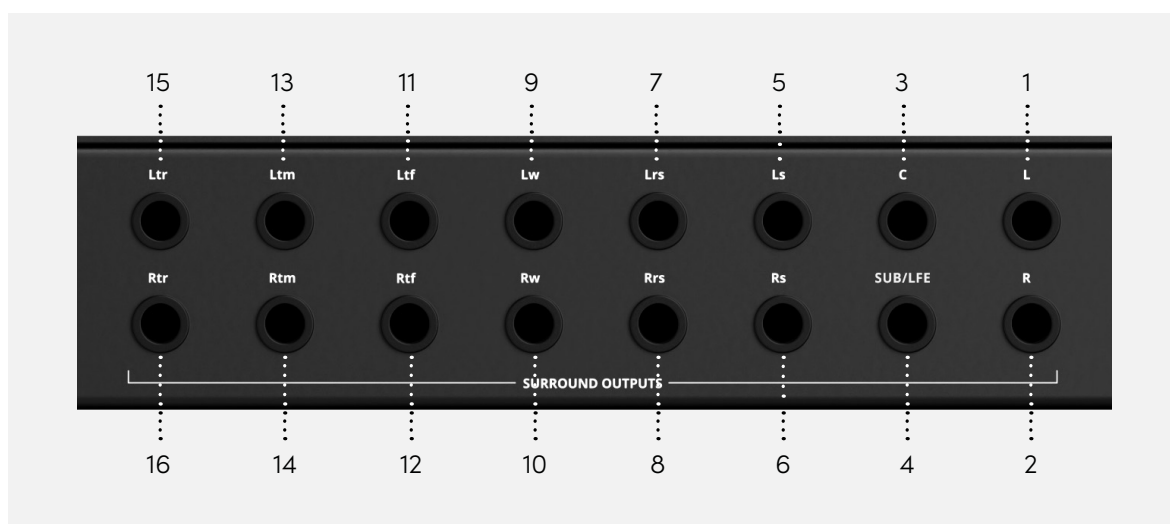
1.	Left (R)			9.	Left Wide (Lw)		
2.	Right (R)			10.	Right Wide (Rw)		
3.	Center (C)			11.	Left Top Front (Ltf)		
4.	Low Frequency Effects (LFE)			12.	Right Top Front (Rtf)		
5.	Left Surround (Ls)			13.	Left Top Middle (Ltm)		
6.	Right Surround (Rs)			14.	Right Top Middle (Rtm)		
7.	Left Rear Surround (Lrs)			15.	Left Top Rear (Ltr)		
8.	Right Rear Surround (Rrs)			16.	Right Top Rear (Rtr)		

*Due to the output topology implemented, unbalanced cables can be used if necessary.

Digital I/O

If you need to expand your audio inputs and outputs then the ORIA provides digital options for both:

- 16 x AES Outputs (DB25) to feed speakers with AES/EBU inputs
- 2 x ADAT Inputs (Optical TOSLINK) providing up to a total of 16x input channels at 44.1/48kHz or 8x channels at 88.2/96kHz (SMUX).

(Please note that the AES Outputs and Analog Surround Speaker Outputs cannot be used at the same time).

AES Pinout

In order to provide 16 channels of audio via a single DB25 port, ORIA uses a standard TASCAM pinout on its AES DB25 output as per the diagram below:
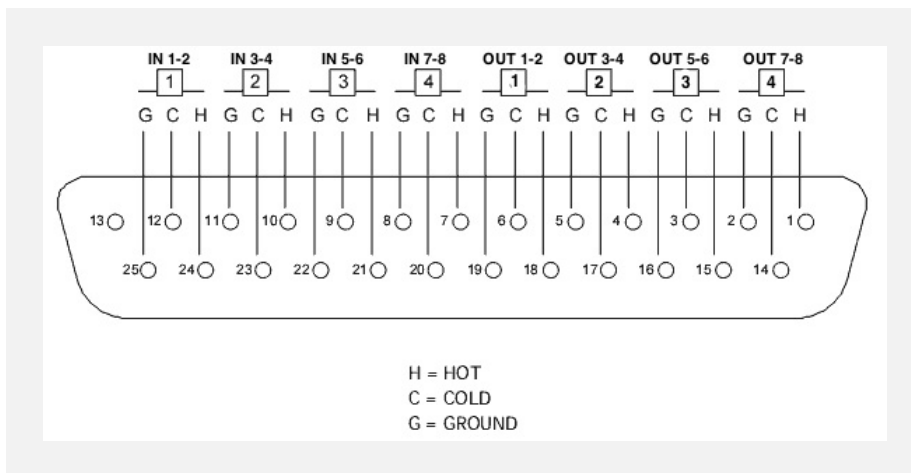
A standard Analog DB25 to 8x XLR loom can be used to break out the DB25 to 8 XLR connectors, with each XLR carrying two channels of audio. This Loom can then be connected to 110 Ohm AES XLR to XLR cables to feed your monitors.

Wordclock

You can choose to have the ORIA be the source of your studio's clock signal (Controller*) or receive a signal from an external source (Peripheral*) via the respective BNC Word clock Input and Output.

> ****Please Note:** Audient has chosen to move away from the traditional terminology relating to clock sources – we will now be using Controller (F.K.A. Master), and Peripheral (F.K.A. Slave).

Clocking Configurations

ORIA can be used as either the Controller, providing clock to other devices or as the Peripheral, receiving a clock from other devices. It is important to only ever have one Controller in a setup or you may get clicks and pops in your audio due to clocking errors.

Oria as the Controller:

Wordclock can be sent out of ORIA via the BNC Output to other devices to allow other devices to sync to ORIA's clock.

If you wish to connect multiple devices to ORIA's BNC Output then you would need to make use of BNC T-Connectors as shown in the diagrams. When connecting multiple devices, it's important that only the last device in the chain has its 75 Ohm BNC termination enabled. If you are unsure how to enable/disable 75 Ohm termination, please refer to the user manual for the external device.

Connecting ORIA to a single device via BNC:

ORIA

75 Ohm termination engaged

ASP880

Connecting ORIA to multiple devices via BNC:

ORIA

BNC-T Connector

2 x ASP880

75 Ohm termination engaged
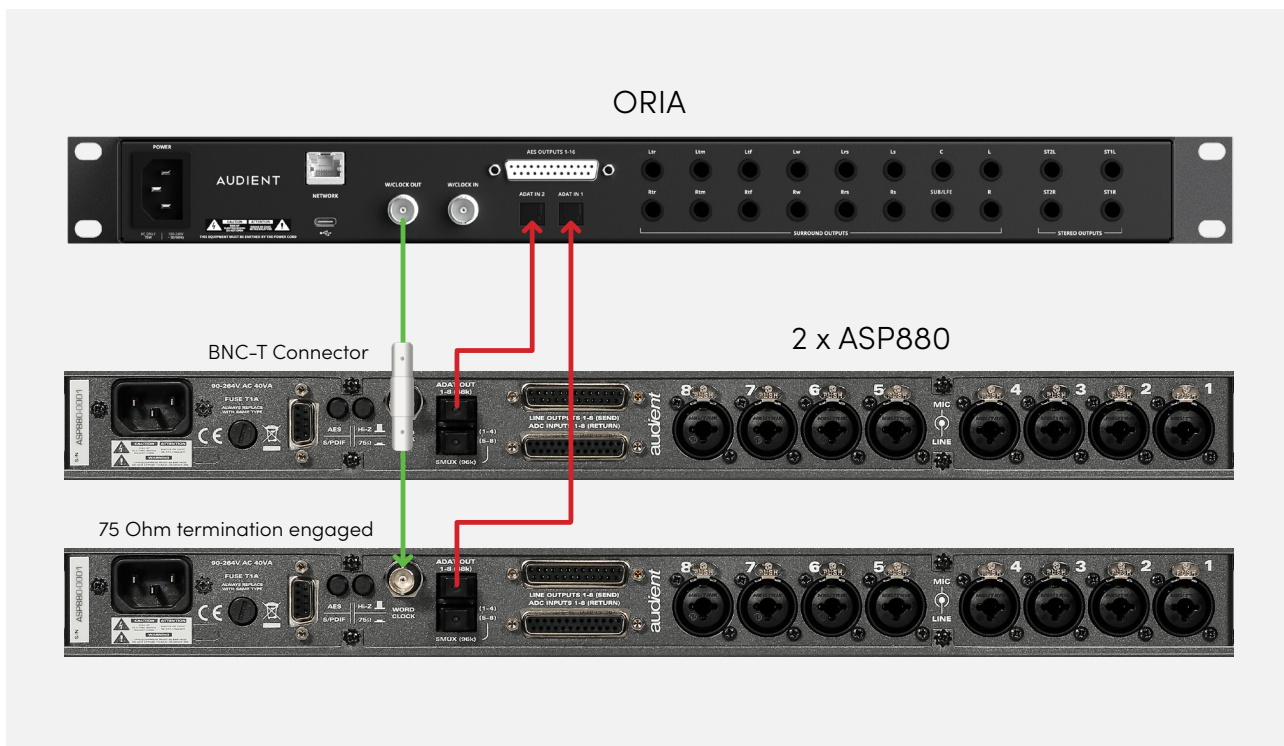
Key: BNC Word Clock Cable   Optical TOSlink Cable

ORIA as the Peripheral:

ORIA can receive clock via the ADAT Input from an external device such as an Audient ASP880.

Receiving a clock via ADAT

ORIA

Optical TOSlink Cable

ASP880

Please note that ORIA cannot send the clock via ADAT as it has no ADAT outputs, if you wish to use the ORIA as a master clock for an ADAT device, then a BNC connection must be used.

Receiving a clock via BNC

ORIA

BNC Word Clock Cable

iD44 Audio Interface

Setting The Clock Source

Once you have connected your external devices to ORIA as per the example diagrams, you will need to instruct ORIA where to take its clock from. This is done in the System Panel of the ORIA software. More information regarding this can be found in the System Panel section of the manual.

Network Audio

ORIA can be fitted with the Optional Dante Card, which will provide 16 inputs to allow ORIA to provide Immersive Monitor Control to a Dante Audio Network.

*Please Note: At the time of writing this manual, the Optional Dante Card is not yet available. Additional information will be provided on the implementation and use of this card upon its release in the near future.

USB

You can connect ORIA with your chosen computer via USB-C. If your computer doesn't have a USB-C port, then a third party USB-C to USB-A cable should be used instead.

Technical Specifications

Mic inputs:
- Gain: 60dB
- Max Input Level: +18dBu
- Crosstalk: <105dB
- THD+N: 0.0015% / –96dB
- EIN: –129dB
- CMRR: –85dB
- SNR: 100dB
- Frequency Response: ±0.5dB 20Hz to 40kHz
- Input Impedance: 1.5kΩ Balanced

Line input:
- Gain: –10dB to +50dB
- Max Input Level: +18dBu
- THD+N: 0.0015% / –96dB
- Input Impedance: 4.7kΩ Balanced

D.I / Instrument Input:
- Gain: 60dB
- Max Input Level: +18dBu
- THD+N: 0.16%
- SNR: 100dB
- Frequency Response: ±0.5dB 20Hz to 40kHz
- Input Impedance: 370kΩ Unbalanced

Line Outputs:
- Lineup Level: +18dBu
- THD+N: 0.0006%, –105dB
- Dynamic Range: 126.5dB
- Crosstalk: –123dB
- Frequency Response: ±0.3dB 10Hz to 40kHz
- Output Impedance: <100Ω Balanced

Headphone Outputs:

- Lineup Level: +18dBu
- THD+N: 0.0007% (–103dB)
- Dynamic Range: 124dB
- Crosstalk: –115dB
- Frequency Response: ±0.25dB 10Hz to 40kHz
- Output Impedance: <50 Ω Unbalanced
- Max Level @ 30R: 5.47V Peak, 3.87Vrms, 997mW
- Max Level @ 60R: 7.4V Peak, 5.29Vrms, 912mW
- Max Level @ 600R: 8.6V Peak, 6.09Vrms, 123mW

USB-C:

- Connector: USB Type C
- Included Cable: USB Type-C to Type-C
- Number of Input Channels: 34
      (2 x Analogue, 16 Digital, 16 AOIP*)
- Number of Output Channels: 38
      (20 Line Outs, 2 x Stereo Headphone Outs, 16 x AES)

*With AOIP card fitted

Digital Inputs:

- ADAT 16 Channels: 44.1kHz to 48kHz
- ADAT 8 Channels (SMUX): 88.2kHz to 96kHz

Word Clock Input and Output:

- Word Clock: 44.1kHz to 96kHz

DSP Latency:

Round Trip:
- 44.1kHz – 6.5ms
- 48kHz – 6.3ms
- 88.2kHz – 5.5ms
- 96kHz – 5.4ms

AOIP (Optional Dante Expansion Card):

- AOIP Inputs: 16 (44.1kHz to 96kHz)

Power Supply:

- Input Voltage: 85 – 264 VAC
- Input Frequency: 47 – 63Hz

Software Features
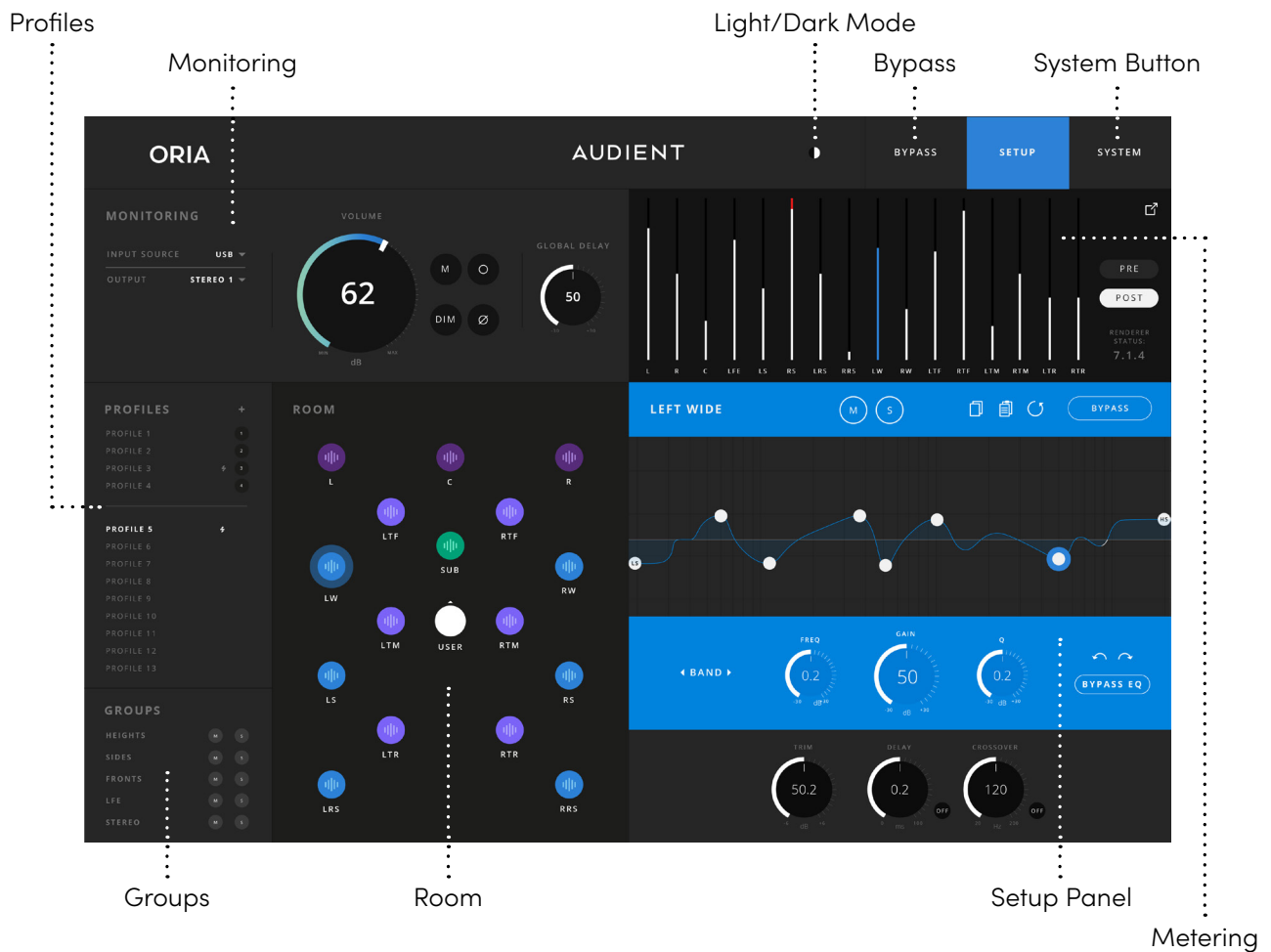
The ORIA Desktop App is an intuitive platform designed to monitor, calibrate and control your speaker array, with the ability to tailor the system to suit your layout and room.

Audient have partnered with the groundbreaking speaker calibration company, Sonarworks(™) to get you started on your immersive mixing journey quickly and easily.

Profiles

Profiles are the heart of the ORIA control philosophy. When we select a Profile, we are simultaneously selecting the choice of speakers assigned to that Profile alongside all of the calibration parameters for every channel – all in one button press. This allows you to quickly switch between Profiles which have been created for different monitoring formats or target modes.

A total of 32 Profiles can be stored on ORIA itself. It is worth noting that although Profiles are stored directly on ORIA's hardware, they are controlled using the Profiles Panel or the Profile button on the front of the unit.

A Profile stores all of the speaker calibration settings, including the EQ curve for every channel, trim, delay and crossover as well as the overall channel routing.

You can either create new Profiles manually in the ORIA Desktop App or by importing them from the SoundID Reference for Multichannel app by Sonarworks(™).

Creating a New Profile

To create a new Profile click the '+' icon found in the top right of the Profiles Panel. Name your Profile and hit Save. The Profile can be renamed by right clicking on it and typing in the new name.

Duplicate an Existing Profile

To duplicate an existing Profile, right click on a Profile name in the Profiles Panel, and select 'duplicate'. A copy of the Profile will appear below the original Profile.

Rename a Profile

To rename a Profile, right click on the Profile name in the Profile Panel, and select Rename. A cursor will appear enabling you to edit the text. Type the new name and press enter when done.

Delete a Profile

To delete a Profile, right click on the Profile name in the Profile Panel and select delete. A window will appear asking you to confirm your deletion.

Profile Organisation

The Profiles list is split into two sections. The 'Favourite' Profiles (F) are the four listed above the dividing line, each with their own number. The Profiles below the dividing line are the 'Non-Favourite' Profiles (NF).

PROFILES   +

PROFILE 1   1
PROFILE 2   2
PROFILE 3   ⚡   3   ······· Favourite Profiles
PROFILE 4   4

PROFILE 5   ⚡
PROFILE 6
PROFILE 7   ······· Non-Favourite Profiles
PROFILE 8
PROFILE 9
PROFILE 10
PROFILE 11
PROFILE 12
PROFILE 13
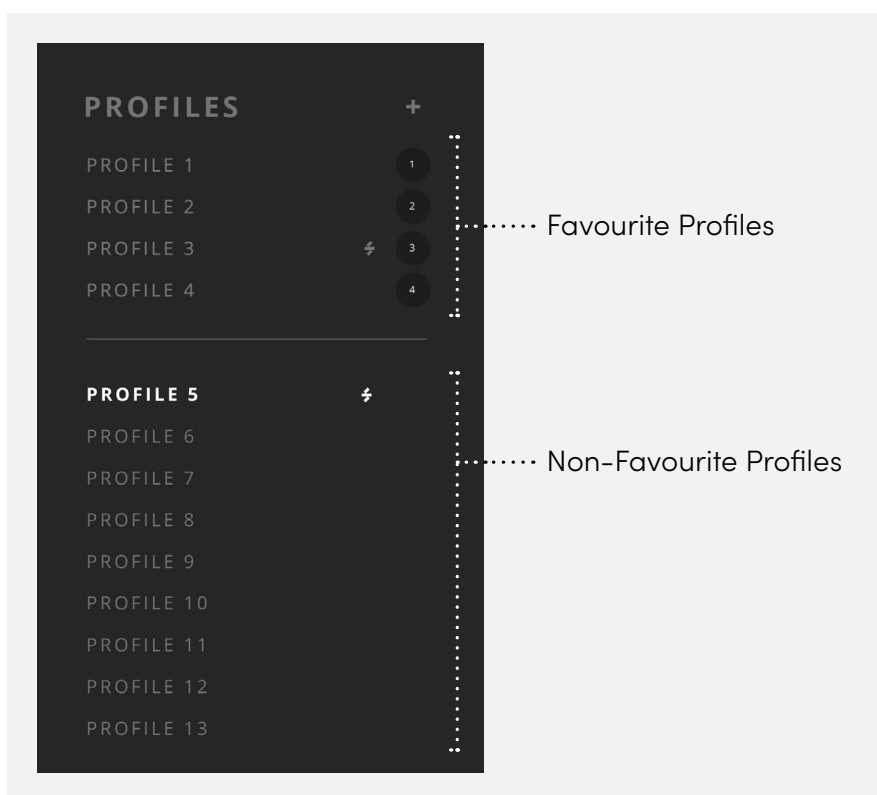
Profiles may be reordered at any time, simply by holding down the left mouse button on the chosen profile and dragging it to the chosen location. When reordering profiles, the following logic applies:

Favourite -> Favourite: The two Profiles will swap locations.

Favourite -> Non-Favourite: The Favourite Profile will be dropped where the user intended. The top Non-Favourite Profile is moved up to the Favourite section.

Non-Favourite -> Non-Favourite: The Profile will drop where the user intended, and all Profiles below will shuffle down.

Non-Favourite -> Favourite: The Non-Favorite Profile will replace the location of the original Favourite Profile. The original Favourite Profile will now be placed at the top of the Non-Favourite list, and every other profile will shuffle down.

Selecting a Profile

To use a Profile, you can simply click on it from the Profile list. This is now your inactive Profiles. This Profile will be highlighted with white text while the other inactive will be greyed out.

You can also select Profiles using the Profile Button on the front panel of the unit by either tapping it to cycle through your designated favourite Profiles or pressing and holding to select from the full list of Profiles.

Making Changes to a Profile

If changes are made to an active Profile then you will see a small 'Save' icon appear next to the Profile in the list. To Save the Profile, simply click this icon and wait a few moments for the Profile to be stored and loaded onto your ORIA. A green tick will appear when this is complete.
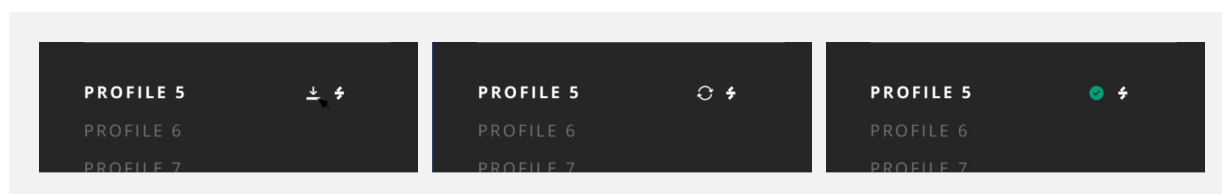
If you try to change Profile or close the ORIA application without saving the changes you'll see a Dialogue Box window asking if you wish to save the changes to the current Active Profile, create a new Profile or discard the changes.

PROFILE SETTINGS

It appears you are importing a Profile from Sonarworks SoundID Reerence Software. Would you like to create a new Profile or overwrite an existing Profile?

CREATE A NEW PROFILE

OVERWRITE EXISTING PROFILE

CANCEL
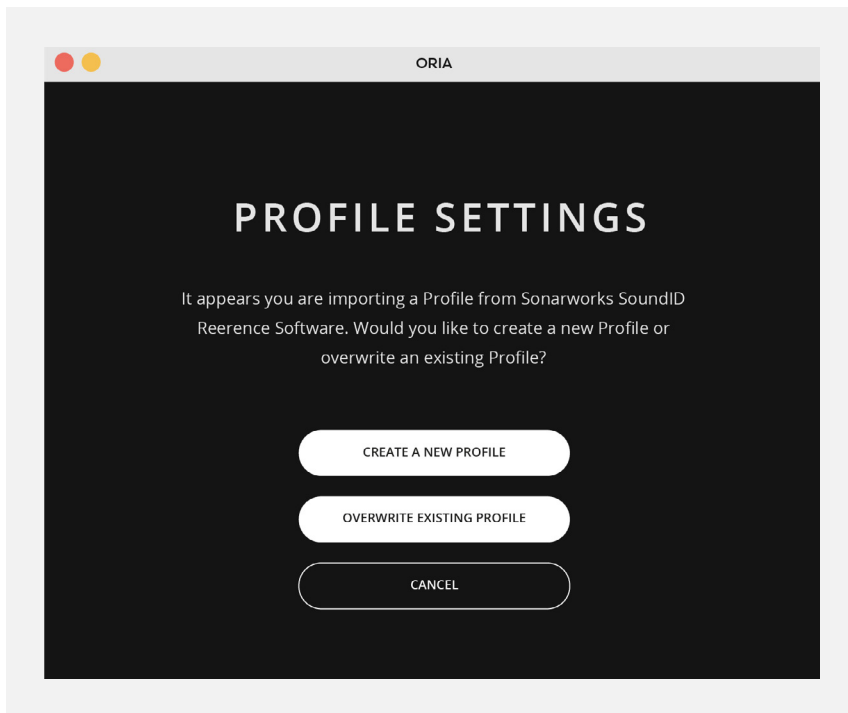
Please note that you can have a maximum of 32 Profiles so if you have filled every slot, the 'Create New Profile' will be greyed out and you will have to overwrite an existing setting or discard changes.

Sonarworks Profile Status

If you have imported a Profile from Sonarworks(™) then a small Sonarworks logo will appear next to it in the list. The logo's colour will indicate it's current status:

- White 'S' logo – Your Sonarworks(™) licence (trial or full) is valid
- Red 'S' logo – Your Sonarworks(™) trial licence has expired
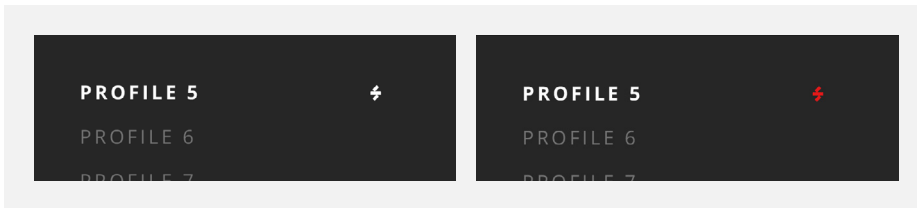
Profiles with a red Sonarworks logo cannot be selected as the Active Profile.

If you attempt to select a Sonarworks Profile that has a red logo then a Dialogue Box will appear prompting you to either purchase a valid Sonarworks license or if you have already purchased a full Sonarworks license, re-import your Profile from SoundID Reference for Multichannel.
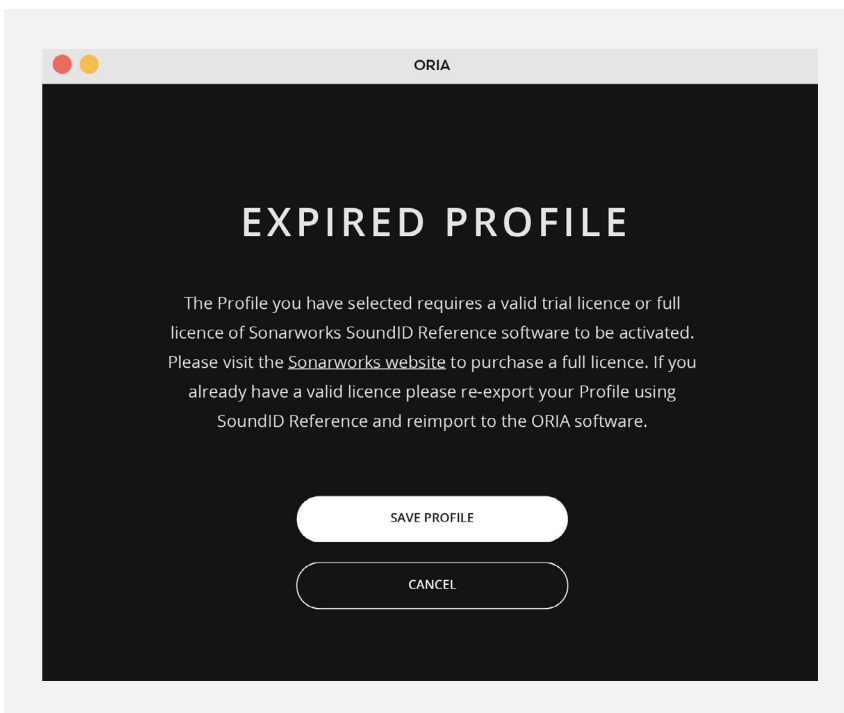
Monitoring

Input Source

Select your audio inputs:

- USB
- ADAT

Output

Select your audio outputs:

- ANALOG
- AES
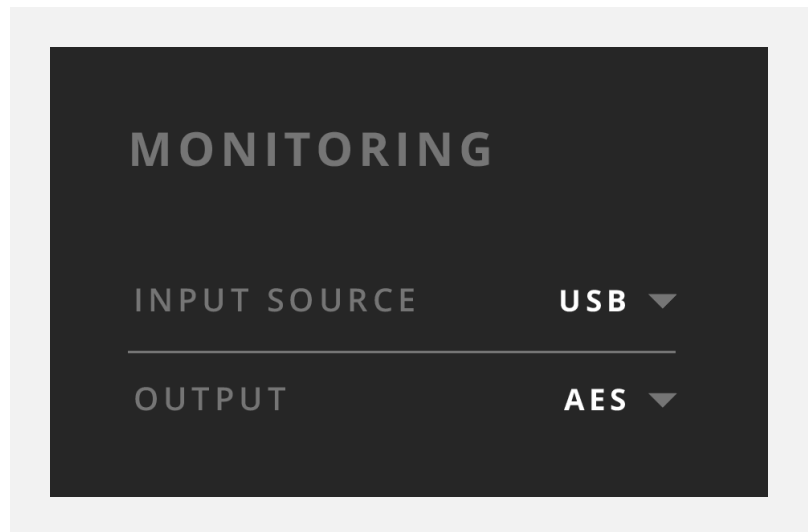
Volume

Control the overall volume of your selected speakers. This is controlled either by clicking and dragging the control or by using the Control Wheel on the front of the unit.
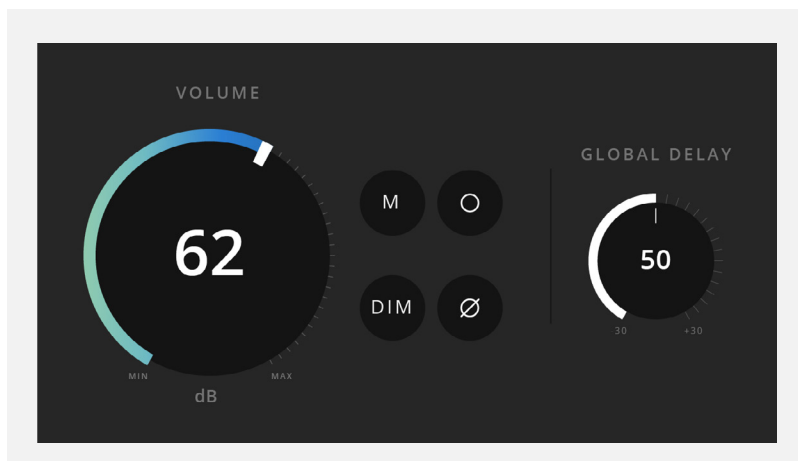
Mute (M)

Mute all speakers outputs.

DIM

Reduce the overall volume by a chosen level. The level of reduction can be changed in the System Panel of the ORIA Desktop App.

Global Delay

Introduce up to 100ms of delay to all speakers, helping align the audio playback with video sources for lip sync.

Mono

Sums the Left and right channels together for mono compatibility checking.

Polarity

Flips the Phase of the Left channel and sums the outputs to MONO.

Return To Reference

Returns the Output level of ORIA to the Active Profiles saved Output Level.

Room

This section provides a visual display of your speaker configuration. The white USER icon indicates the direction that the listener would face. The colours of the units indicate which of the speaker Groups they belong to:

- **HEIGHTS** = Light Purple
- **SIDES** = Blue
- **FRONTS** = Dark Purple
- **SUBS** = Green
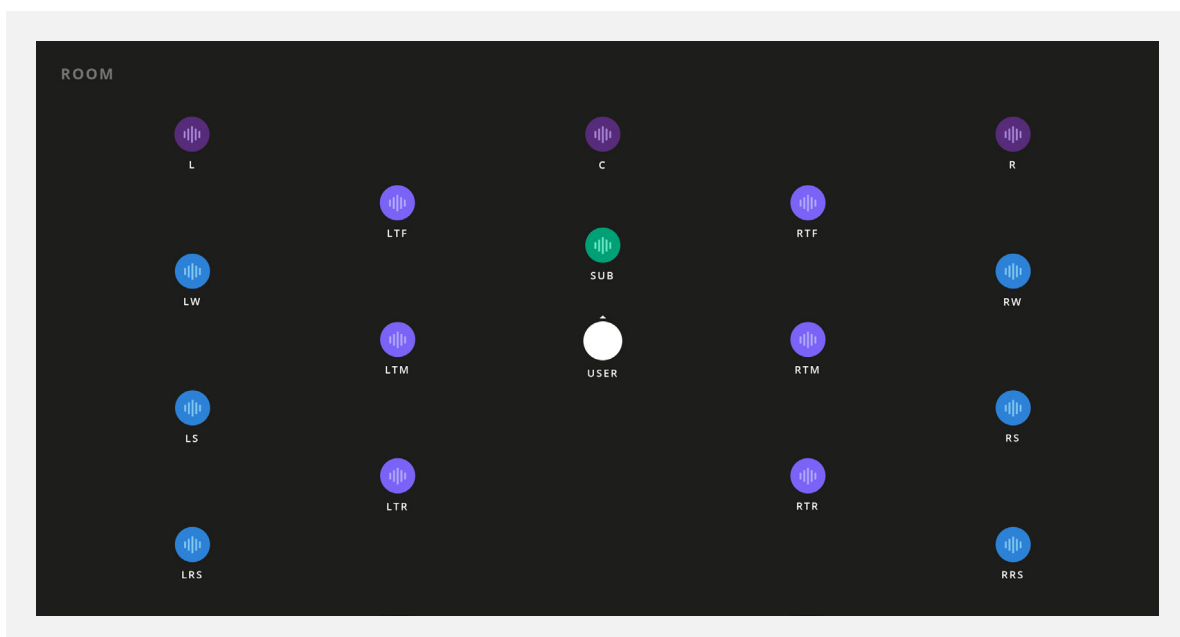
When a speaker is receiving audio, you will see a small waveform icon appear on it. This is helpful when trying to identify which speaker output is playing audio during setup and installation.

Solo /Mute

Speakers in the Room may be Solo'd or Muted using the following keyboard shortcuts:

- Mute – Left Click

- Solo – Shift + Left Click
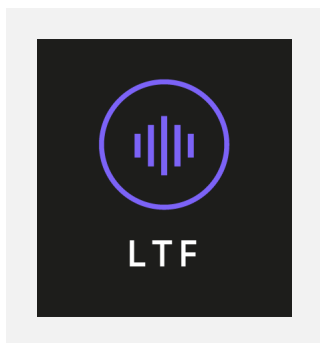
Whilst a speaker is Solo'd, the Mute function will become unavailable for all other speakers and groups. Users will be able to continue to Solo other speakers in the Room. Solo'd speakers will have their corresponding meters active in the 'Post' metering window.

Clearing Solo/Mute states is possible by using the following shortcut:

- **Option (MacOS) / Alt (Windows) + Left Click**

Clicking on a Solo'd speaker will clear all active Solos, and if clicked on a Muted Speaker it will clear all active Mutes.

Groups

This monitoring function allows you to Mute or Solo predetermined groups of speakers:

- **HEIGHTS** (Ltf, Rtf, Ltm, Rtm, Ltr & Rtr)
- **SIDES** (Lw, Rw, Ls, Rs, Lrs & Rrs)
- **FRONTS** (L, R & C)
- **SUBS** (LFE/SUB)
- **STEREO** (L & R)
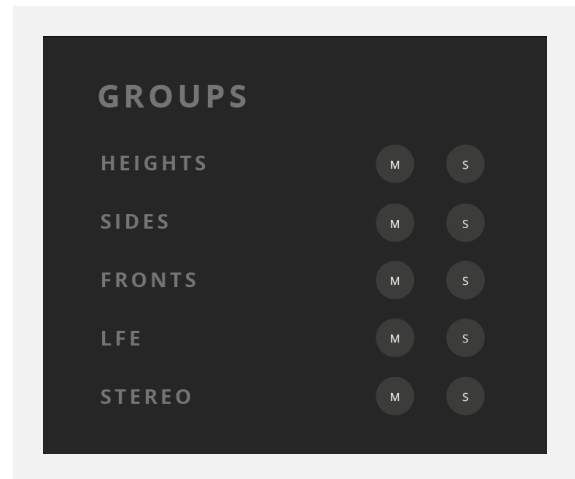
When individual speakers, or speaker Groups, are muted they will be greyed out in the Room window.
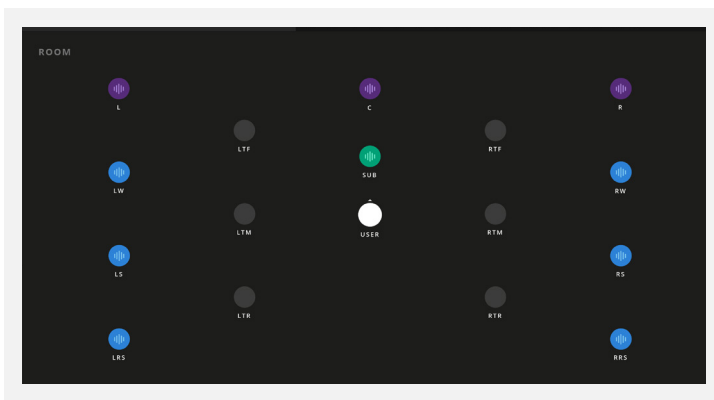
Similarly, if a Speaker Group or Groups have been Solo'd then all other Groups will be greyed out in the Room window.

Metering

The ORIA Desktop App provides a straightforward metering solution to allow you to quickly check your levels, output routing and the impact of ORIA's digital signal processing (DSP). Meter settings are entirely independent of your Profiles, so will not change when moving between Profiles.

PRE

This shows the signals entering the ORIA Desktop App from your DAW outputs.
PRE is selected as the default.

POST

This shows the signals leaving the ORIA Desktop App after the output DSP and going to your speakers. POST Metering mode will take the volume control into account.

LFE/SUB

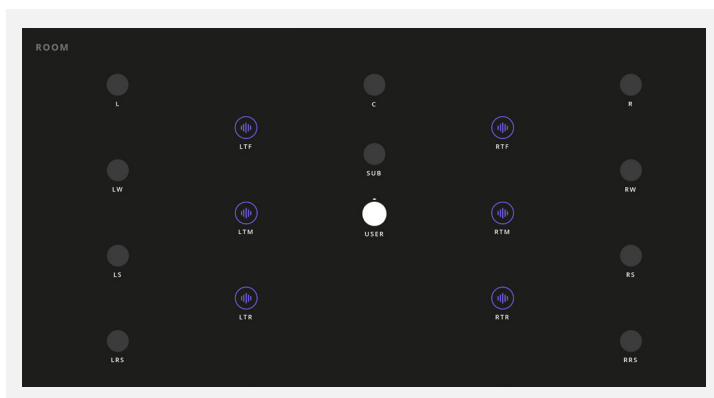When in PRE metering mode, the Meter for the LFE channel will only show the audio being sent to it from your DAW on the LFE channel. When in POST Metering mode however, the meter will also show the audio that is being assigned to the SUB channel from the crossovers you have applied on each speaker channel in the ORIA Desktop App.

The labelling of this channel will change from 'LFE' when in PRE mode to 'SUB' when in POST mode to indicate this difference.

Muting/Soloing Channels

If a speaker channel is muted, then the meter for this channel will also be greyed out.
If a channel or channels are Solo'd, all other channels will be blacked out.

Muting Channels
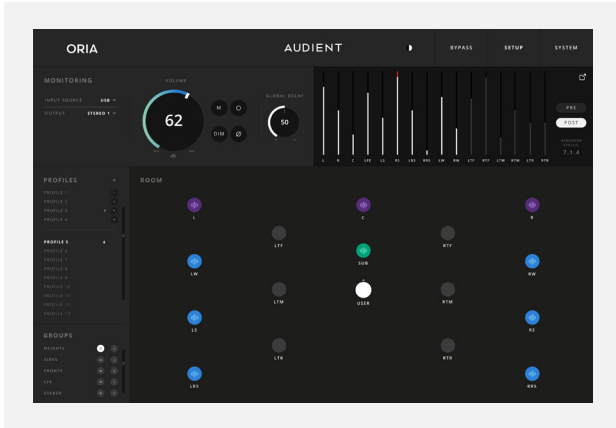
Soloing Channels
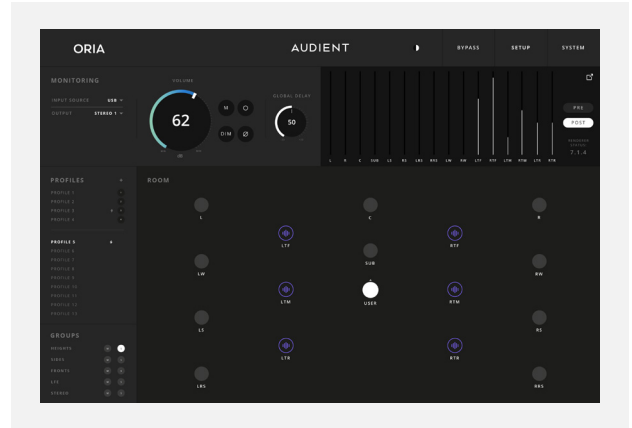
Down Mix Status

If you have configured a renderer in the System Panel then you can quickly check the current Down Mix Status in the bottom right of the meters. If no renderer has been selected then this will not appear.
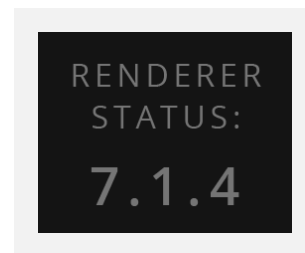
Expanded Metering Window

The Metering Panel can be expanded to its own window, allowing you to keep your meters in the foreground whilst mixing. The Expanded Metering Window show more details such as a dBFS scale and peak values.

Menu Bar

Light/Dark Mode

The ORIA Desktop App can be viewed in Light or Dark mode, depending on your preference and your studio environment.

Dark Mode Toggle   Light Mode Toggle
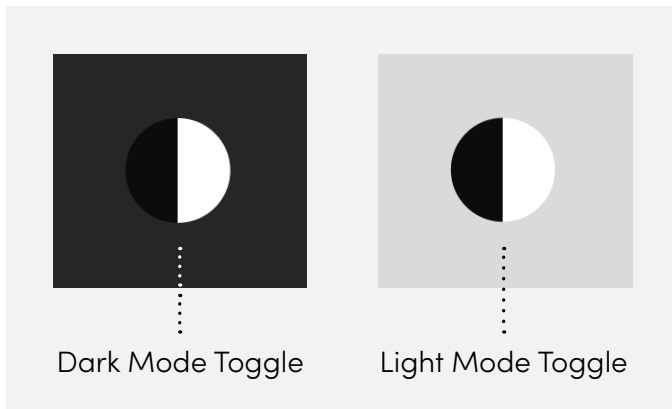
Master Bypass

This allows you to bypass all DSP settings on the ORIA Desktop App.

Setup Mode

This section allows you to manually edit the calibration settings for each individual output. Click on a Speaker Icon in the Room section to see a range of options for that speaker's output. A halo will appear around that speaker to indicate it is currently being edited.

SELECTED SPEAKER   SELECTED SPEAKER   MUTED SPEAKER   SELECTED SPEAKER
(SETUP MODE)   RECEIVING SIGNAL   (SETUP MODE)   SOLO'D
                      (SETUP MODE)   (SETUP MODE)
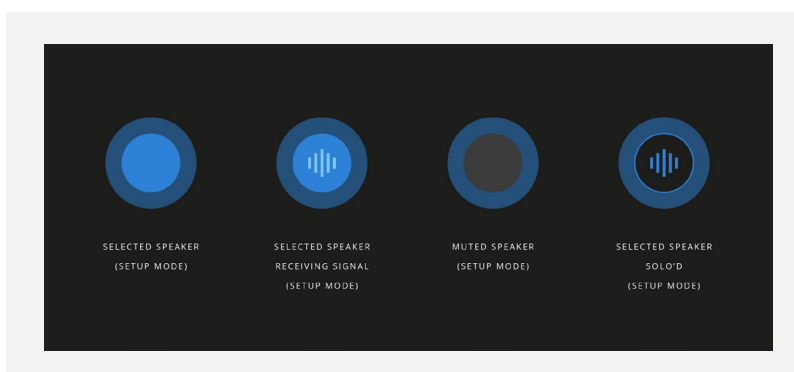
Speaker Channel

Shows the name of the Channel currently being adjusted.
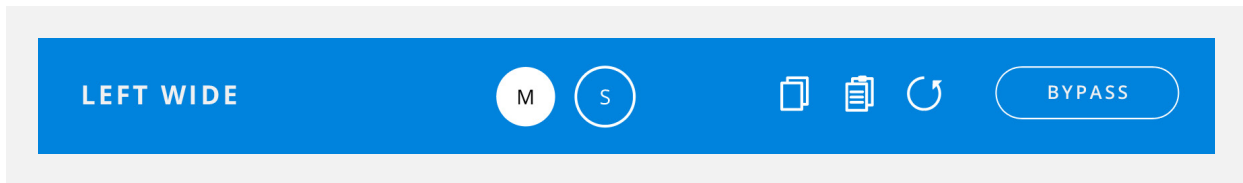
Mute (M)

You can Mute the individual speaker selected.

You can Mute a channel by pressing the 'M' key on your keyboard whilst in Setup Mode.

Solo (S)

You can Solo the individual speaker selected.

You can Solo a channel by pressing the 'S' key on your keyboard whilst in Setup Mode.

Copy/Paste

If you wish to use the same settings on other speakers then you can click the Copy Button. You can then select another channel and click the Paste Button to apply the copied settings to that channel.

You can also paste the DSP settings to a Speaker Group if you wish to use the same settings for all speakers in that group.

Simply 'Right Click' on a Speaker Group within the Groups Panel and click Paste to copy.

Please note that only the EQ and Cross-over DSP settings will be pasted to groups. Trim and Delay values should always be set on a per-speaker basis to ensure correct time alignment of your speaker setup.

Reset

The Reset Button sets the channel back to its default settings. A Dialogue Box will appear to confirm you wish to reset the settings to ensure settings are not reset by accident.

EQ

Each speaker output has its own EQ, featuring 8 bands that can adjust $\mp$12db between 20Hz - 20kHz and a Low and High shelf. This level of control enables the speaker's sonic performance to be fine-tuned to your configuration and room.
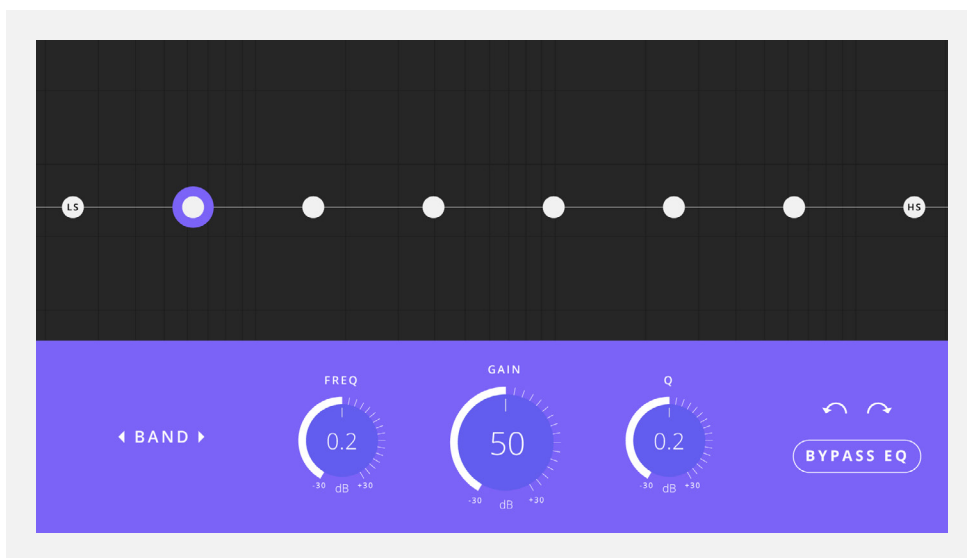
Click on one of the dots to adjust the settings for that particular band. The dot will be highlighted to indicate that is the band being adjusted.

You can then either drag the dot on the graph to change its settings, or you can manually enter your values by double-clicking on the Frequency, Gain and Q controls.

You can use the left and right arrows to cycle through the EQ bands. It is also possible to cycle through the bands by holding the Command/CTRL keys and pressing the left and right arrow keys on your keyboard.

Undo and Redo Buttons are provided should you make a mistake with your settings. The Bypass EQ Button allows you to disable the EQ on this particular channel.

Output Controls

In this section you can control various options for each individual output:
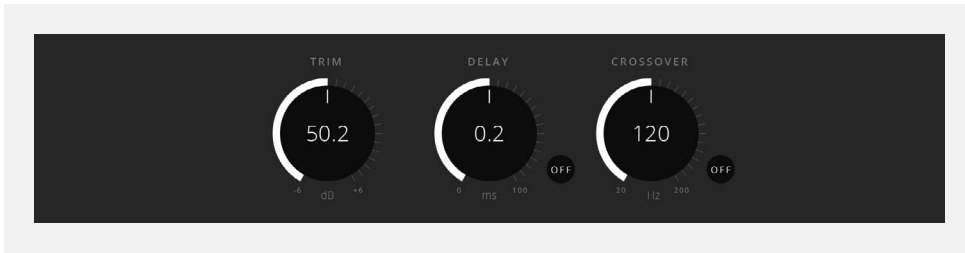
At the bottom of the Setup Panel, there are three further controls for speaker calibration.

Trim

The first control is Trim, which raises or lowers the level of this speaker by up to 12 decibels, in increments of 0.1 decibels. Click and drag this control to either add or remove Trim from this speaker, alternatively double click on the control to input a numeric value manually.

Delay

The second control is Delay, which delays the signal from this speaker by the defined amount of time. This is useful in time aligning speaker signals to arrive at the listener from each speaker at the same time for optimal immersive imaging.

The Delay control has a range from 0 milliseconds to 75 milliseconds, in increments of 0.01 millisecond. Click and drag this control to add Delay to this speaker signal, alternatively double click the control to manually enter a numeric value. The Delay control also has a separate 'On' button to toggle the delay on and off.

Bass Management/Crossover

The third control is Crossover, and this is for configuring Bass Management. When engaged by clicking the 'On/Off' button, Bass Management is now enabled for this speaker. This means that audio frequencies that had been sent to this speaker channel below the defined frequency value seen in the control will be removed from this signal path, and instead redirected to the subwoofer channel.

This is important in audio systems where the individual speakers may not be able to faithfully recreate lower bass frequencies, and so redirecting these lower frequencies to the subwoofer may provide a more optimal experience. Click and drag this control to define the crossover frequency, below which audio will be sent to the subwoofer and above which the audio will be sent to the defined speaker channel. Alternatively, double click on the control to manually enter a frequency value.

System Panel

The System Panel at the top of the ORIA Desktop App lets us look under the hood at the more advanced settings for connectivity and control. The System Panel is split into 3 different Pages which are selectable using the tabs on the left-hand side

General
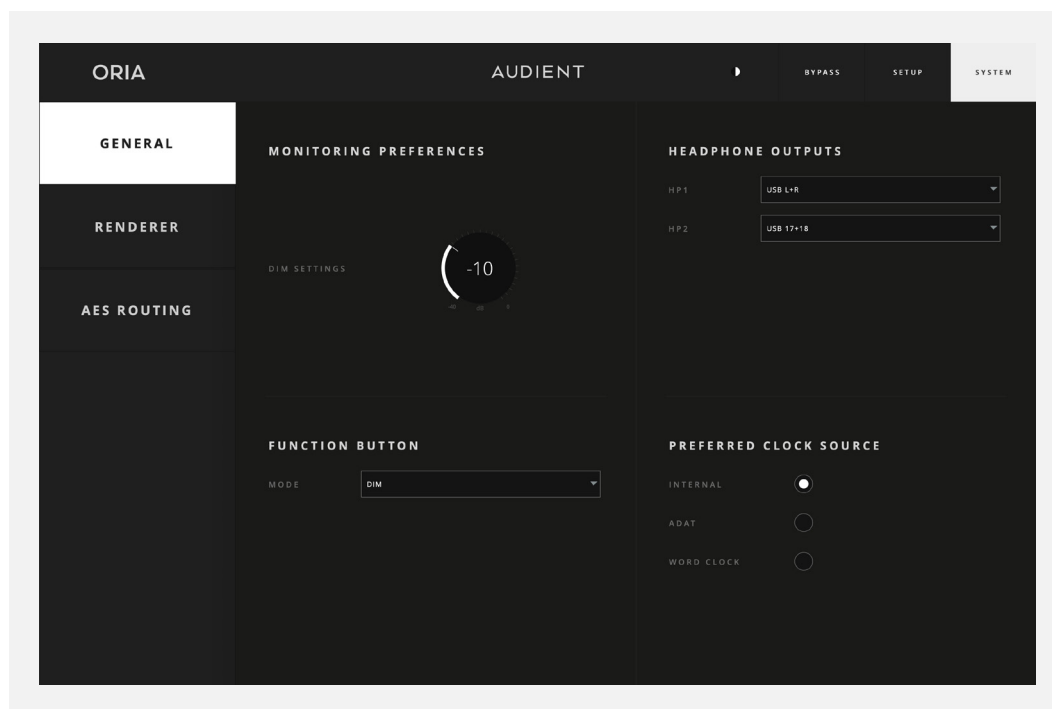
DIM Trim

Here you adjust how much the level is reduced by when the DIM function is enabled.

Function Button

Select what the 'F' Button on the front panel of ORIA does from the following options:

- DIM (default)
- Talkback
- Return to Reference Level
- Mono
- Polarity Reverse

NOTE: Monitoring functions assigned to the hardware Function Button are not stored as part of a profile. They are system wide.

Preferred Clock Source

This setting lets you choose what source is used as the Clock Source. By default, this will be set to Internal but you can choose from Internal, ADAT or Word Clock.

When you select an external clock source, a clock indicator will appear to the right of the clock source. The colour of this provides the clock status.

- **Red**: No Valid Clock Detected
- **Amber**: Clock Detected at Wrong Sample Rate
- **Green**: Clock Detected at Correct Sample Rate

If the indicator is red, please double-check your physical connections to the unit and ensure you have selected the correct source.

If the indicator is amber, you will need to adjust either ORIA's sample rate or the sample rate of your external device so that the two devices are operating on the same sample rate.

If the clock indicator is green, then that means everything is set up correctly.

Headphone Setup

You can select which output channel of ORIA feeds Headphone Outputs 1+2 from the following options:

- USB L + R
- USB 17 + 18
- USB 19 + 20

Most Renderers will allow you to send a separate Binaural Mix to a headphone output. In this case you would need to select either Output 17+18 or Output 19+20 as your Binaural output channels in your renderer and then select the chosen channel as your headphone source.

Renderer

The Renderer Page is for connecting ORIA directly to the Dolby Atmos Renderer, both to use the Down Mix Button on the ORIA hardware to cycle through different down mixing format options, but also so that the Dolby Atmos Renderer can feed back information to ORIA about which Down Mix format is in use.
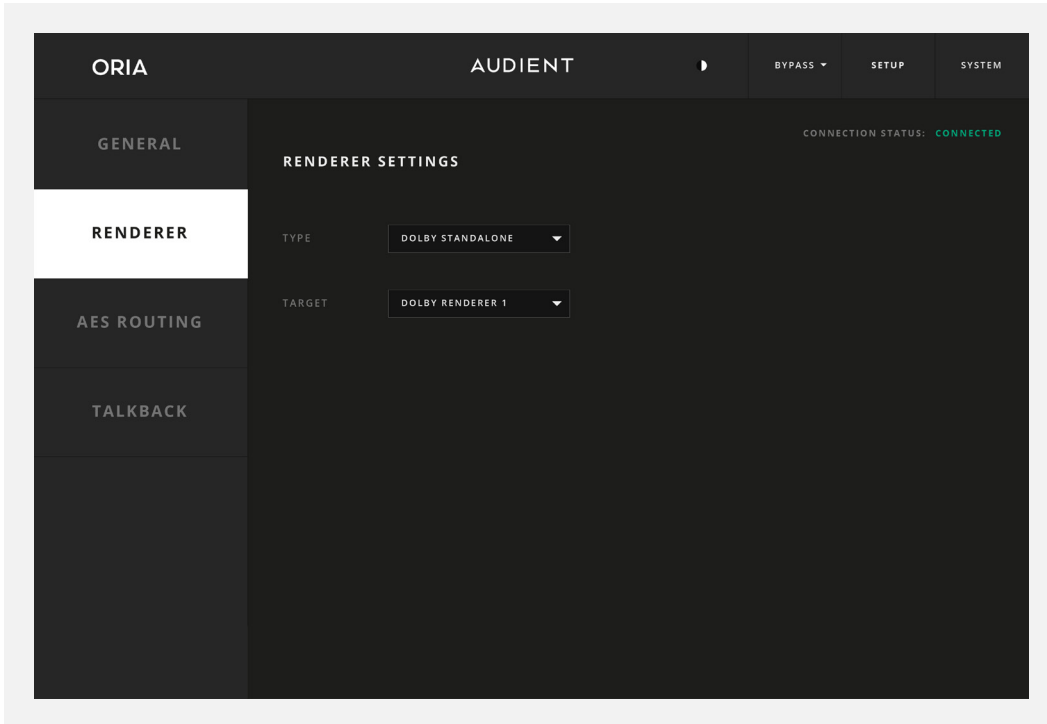
Type

Make sure the Dolby Renderer is open on your system then Select the Dolby Atmos Renderer.

Target

Choose from the list of renderers available on your system under the type selected.

If the Dolby Atmos Renderer is open and running on the same computer, the computer's name will appear in the Target drop down list. Select the local target and the Connection Status at the top right of the panel should change from 'Unavailable' to 'Connected'.

Manual Address

If you have selected 'Manual Address' from the 'Target' list here you can enter the IP address of a specific renderer if you wish to control a renderer on a network, rather than the local machine.

AES Routing

If using the AES outputs to feed your monitors, you may wish to re-assign the speaker channels to make cable installation easier.
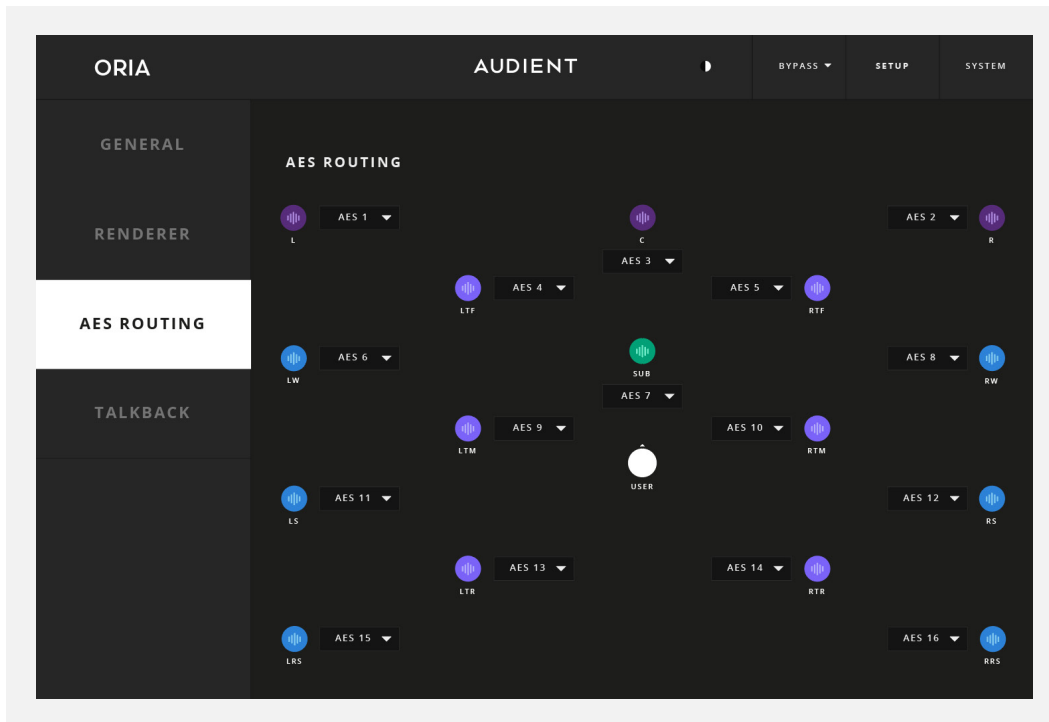
The AES Routing Page is where we can change the order of the AES Outputs, to make cable routing in the studio easier. AES digital audio is provided in two-channel digital streams over a single cable, and in a stereo setup it is expected by default to connect one speaker to another in a chain. In an immersive setup, if we were to do this with left and right pairs across 16 channels this could result in complex and untidy cable routing.

To alleviate this issue, we have implemented a solution in the ORIA hardware where you can connect any speaker output to any AES channel, enabling much neater cable routing than would otherwise be possible, where one AES stream can provide audio to two adjacent speakers rather than using the default routing configuration.

For an example, it may be desirable to connect the Front Left and Left Wide speakers together in a chain. To do this, we could designate AES 1 to be the Front Left speaker and AES 2 to be the Left Wide Speaker, as each digital AES stream is provided as an odd and even pair on a single cable.

The Front Left speaker is already set to AES 1 in this instance, but we would need to change the routing of the Left Wide speaker, which is set to use AES 9 by default. Click the dropdown menu next to the Left Wide speaker, and here we can choose to change the routing to AES 2. As a result of this routing, we can also see that the Front Right channel, which was previously assigned to AES 2, has now deselected its output because only a single speaker can use an AES assignment at one time. ORIA handles routing the calibration and volume features internally. Make sure to test channel routing assignments after changing these settings.

Use the drop-down menus to select which channel is assigned to a particular speaker output. Please note that each output can only be assigned to one speaker channel. If a speaker channel is not being used then 'NONE' should be selected.

Output Calibration

As you add more speakers into your studio space, their placement and positioning become increasingly important. You will also have to think about the way your whole room is acoustically treated now that there are speakers behind and above your listening position.

The ORIA's DSP and Sonarworks(™) room calibration tools enable you to get the best from your speakers but we recommend refining your speaker positions and improving the sonic absorption and/or diffusion solutions in your room to get the best surround sweet-spot possible and before attempting a calibration.

If you are unsure about speaker placement or acoustic treatment then we strongly recommend acquiring advice from a qualified acoustician to ensure you are getting the most from your setup.

Automatic Calibration – Sonarworks

When you purchase an ORIA you can take advantage of a 60 day free trial version* of the industry-leading measurement and calibration software SoundID Reference for Multichannel by Sonarworks(™). This comprehensive tool measures and calibrates a multichannel setup in less than an hour so you can get up and running (almost) immediately.

*Once your trial period has expired you will need to purchase a perpetual licence directly from Sonarworks(™) and re-import your measurements into the ORIA Desktop App, or calibrate your speaker outputs manually via the Setup Mode. Profiles made during the free trial period will no longer function once the trial period has ended.

Inside the ORIA box, you'll find a Sonarworks Reference Microphone and a small card with details on how to create an account with Sonarworks and download SoundID Reference for Multichannel.

Click here to watch the Sonarworks calibration video.

Once you've installed SoundID Reference for Multichannel, you can simply follow the on screen instructions that will walk you through the measurement process. A full 9.1.6 measurement process will take around 40 mins to an hour to complete.

Importing a Sonarworks (™) SoundiD Reference for Multichannel Profile

macOS

Once you have completed the measurement process using SoundID Measure, import your measurement results into SoundID Reference for Multichannel software. Here you can create a SoundID Reference Profile with your desired Target Mode. For more information on this process please consult Sonarworks product documentation.

Once complete, you'll be given the option to 'Export Preset to Device'.

Select ORIA from the list of devices.
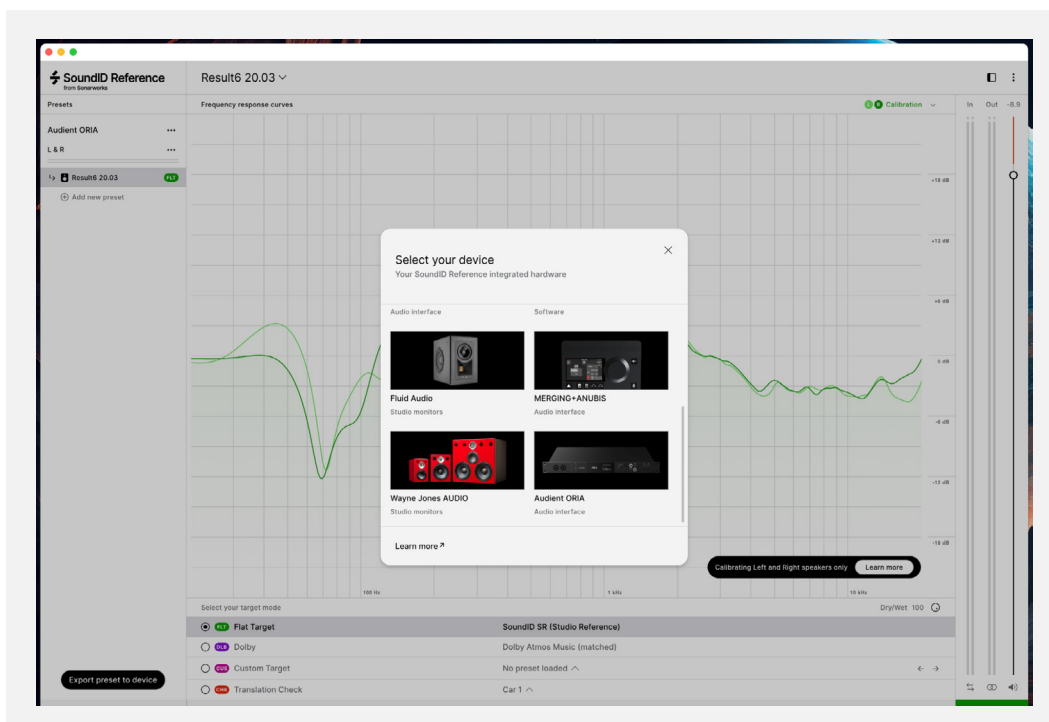
Now, select 'Direct transfer to Audient ORIA application' and click 'Next'.
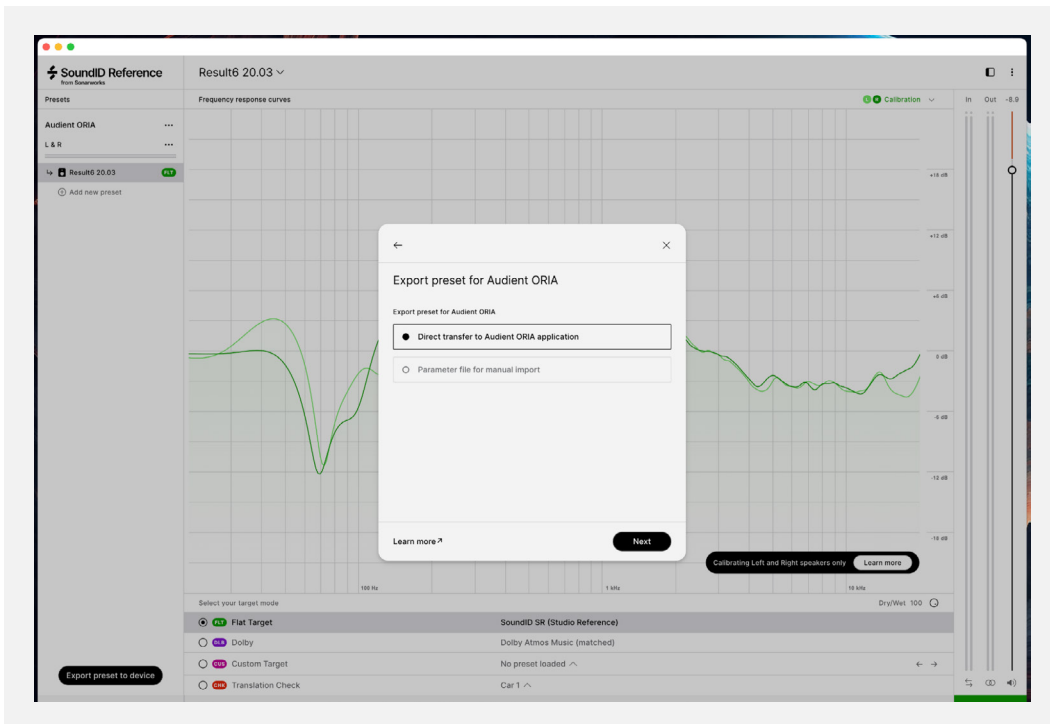
This will automatically open the ORIA Desktop App and present you with a dialogue box asking you to choose whether you overwrite an existing Profile in the ORIA Desktop App or create a new one:
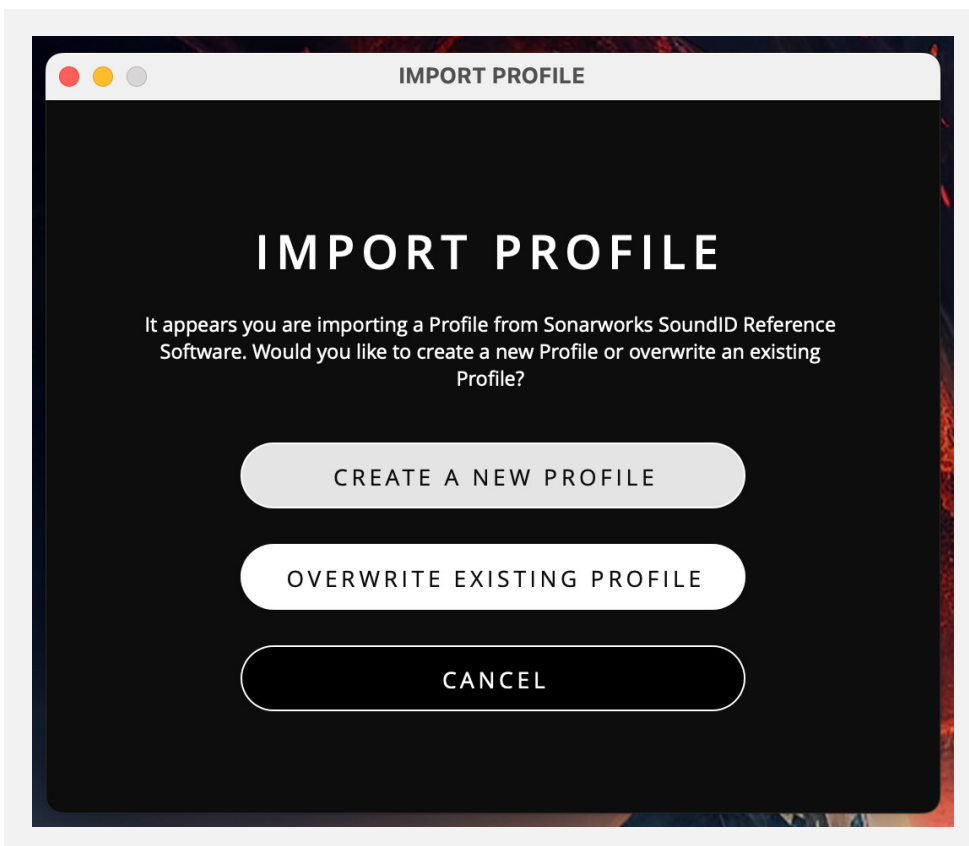
If you create a new Profile, you'll be prompted to give it a name. If you choose to overwrite an existing Profile, you'll be given an option of which Profiles are available to overwrite.
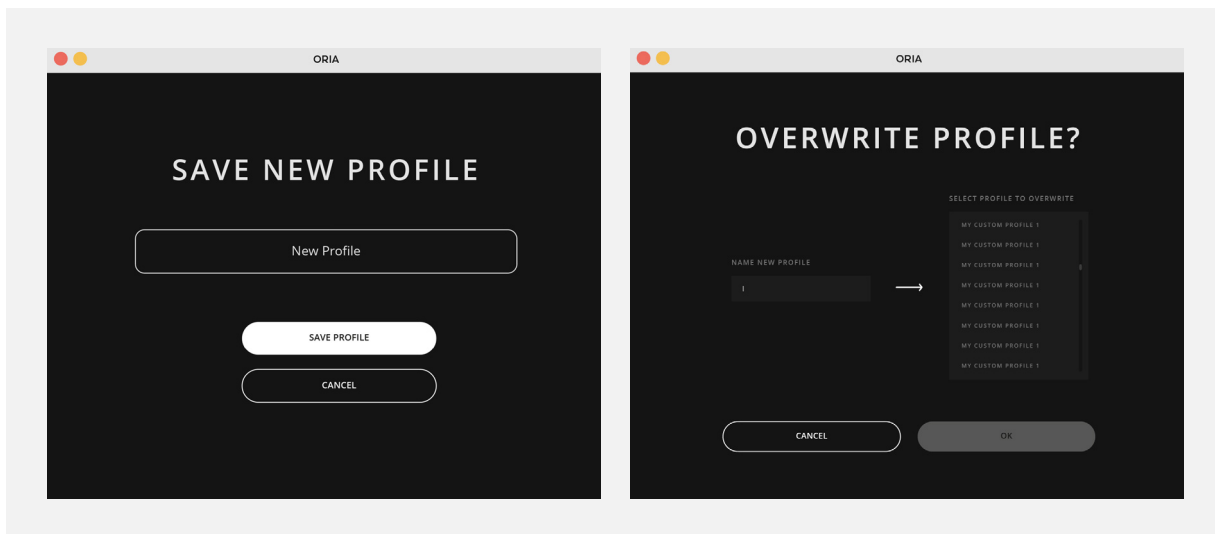
The new Profile will now appear in the Profile Panel. Please note Profiles created with SoundID Reference will be denoted by a Sonarworks 'S' appearing next to the Profile name.
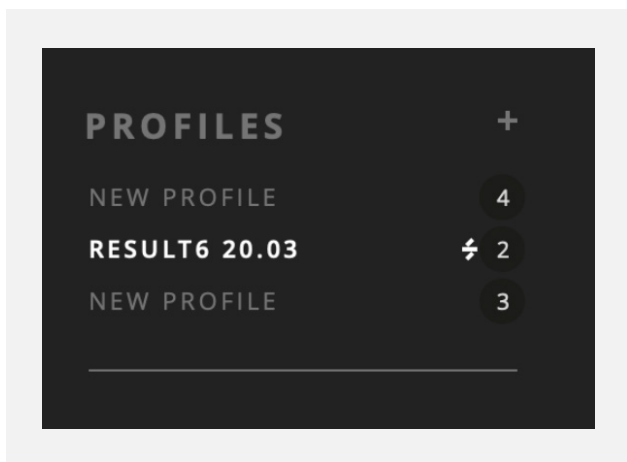
Windows

Due to software limitations, at this moment in time, Sonarworks Sound ID Reference Profiles cannot be loaded into the ORIA Desktop App on Windows. This functionality will be added via a driver/firmware update imminently.

Adjusting a Sonarworks Profile

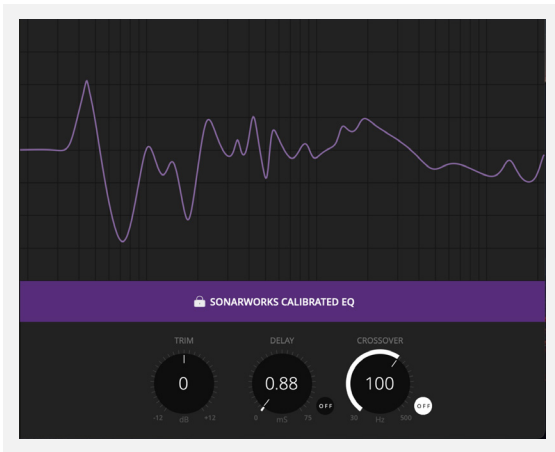Please note that if you are using a Profile based on Sonarworks(™) measurements, the EQ in the Setup Mode section will automatically be locked to prevent alterations.

The Trim, Delay and Crossover controls are also locked by default, but it is possible to make adjustments to these. Click the 'Locked' button to unlock these settings, you can now make adjustments.

Please note that if you are using a Profile based on Sonarworks(™) measurements then the EQ in the Setup Mode section will automatically be locked to prevent alterations.

The Trim, Delay and Crossover controls are also locked by default but it is possible to make adjustments to these. Click the 'Locked' button to unlock these settings, you can now make adjustments.

Manual Calibration

If you prefer not to use Sonarworks, then third-party measurement software can be used instead. The included Sonarworks Reference Microphone can be used for this, or you can use your reference mic if preferred.

If using a third party software, it is not possible to directly import your settings into ORIA, the speaker calibration settings must be entered manually.

The third party software should give you an EQ curve you can apply to each channel, as well as Trim and Delay settings. These settings can then be entered manually for each channel as explained in the Setup Menu section earlier in this manual.

When manually calibrating, you can adjust the following for each speaker channel:

- EQ (8 bands, $\mp$12db, 20Hz – 20kHz + Hi-shelf and Lo-shelf)
- Output Trim ($\mp$6db)
- Delay Time (0-75ms)
- Crossover Point (30Hz – 500Hz)

This allows you to balance your speaker configuration and get the best surround sweet-spot possible.

iPad Control

ORIA iPad App

Never miss a beat with ORIA's iPad App. The power of touch grants you remote access to all of ORIA's control features from one centralised control hub. Adjust levels, audition speakers, switch profiles and monitor your metering – all directly from your desktop. **Precise control without the complexity**.

*Please Note: Whilst not currently available, the ORIA iPad App will be available in the near future.
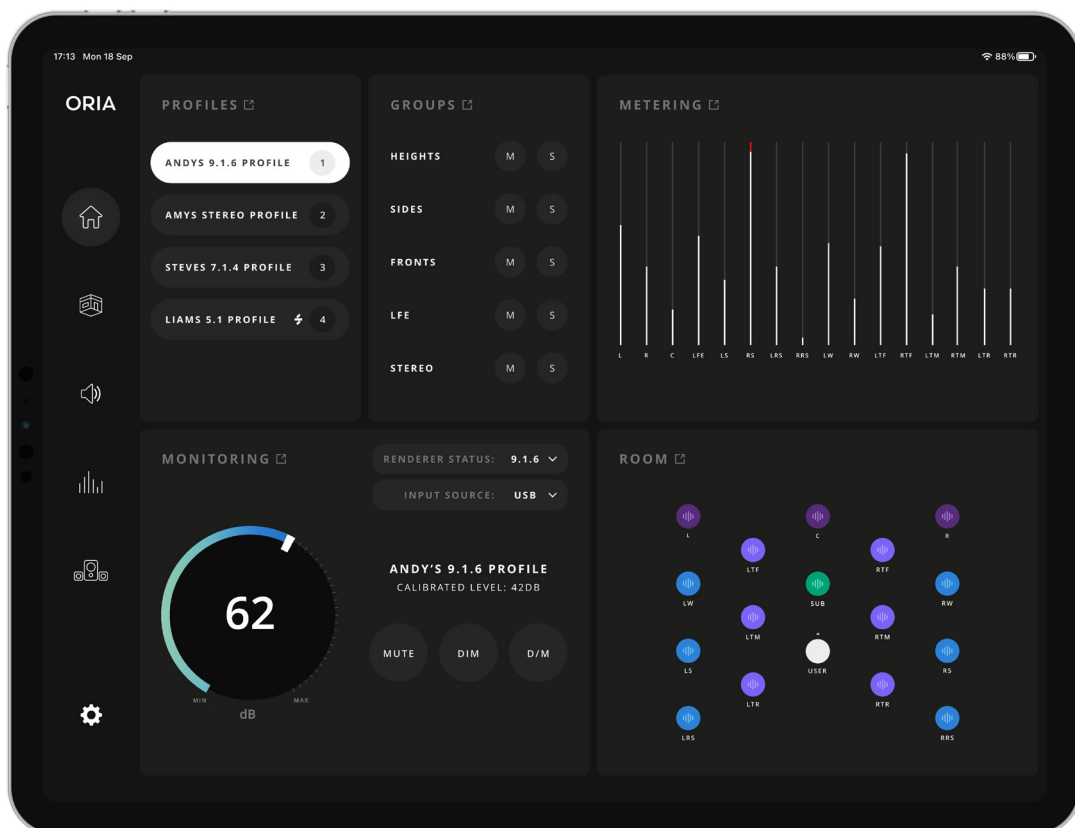
Coming soon to the App Store

Keyboard Shortcuts ⌥ ⌘ ⇧

Mac

Room Panel Buttons:

      Toggle Solo – Shift + Click on speaker button
      Clear all mutes – Option + Click on a muted speaker
      Clear all solos – Option + Click <u>or</u> Option + Shift + Click on a solo'd speaker

Keyboard Shortcuts:

      Show/Bring up the Meter Window – Command + Shift + M
      Navigate EQ Bands* – Command + Left/Right arrows

      *Only avaliable if the setup panel is visible

Windows

Room Panel buttons:

      Toggle Solo – Shift + Click on speaker button
      Clear all mutes – Alt + Click on a muted speaker
      Clear all solos – Alt + Click <u>or</u> Alt + Shift + Click on a solo'd speaker

Keyboard Shortcuts:

      Show/Bring up the Meter Window – Alt + Shift + M
      Navigate EQ Bands* – Alt + Left/Right arrows

      *Only avaliable if the setup panel is visible

Safety Information

IMPORTANT SAFETY INSTRUCTIONS

- **Read instructions** – All the safety and operating instructions should be read before the product is operated.

- **Retain instructions** – The safety and operating instructions should be retained for future reference.

- **Heed Warnings** – All warnings on the product and in the operating instructions should be adhered to.

- **Follow Instructions** – All operating and use instructions should be followed.

- **Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning.

- **Attachments** – Do not use attachments not recommended by the product manufacturer as they may cause hazards.

- **Water and Moisture** – Do not use this product near water–for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

- **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

- **Flame Sources** – No naked flame sources, such as lighted candles, should be placed on the product.

Rack Mounting

ORIA requires 1U of vertical rackspace and a minimum of 400mm rack depth, allowing for cables. It weighs 3.5kg and for fixed installations – such as a studio – the four front panel mounting screws will provide adequate support. The front panel depth is 8mm at the mounting positions.

ORIA does not generate significant heat, and is cooled by natural convection. We recommend that the unit should not be used in locations where the ambient temperature is greater than 35°C. Ventilation is via slots on either side of the enclosure, and these must be clear of obstruction.

Do not mount ORIA immediately above or below any other equipment which generates significant heat, for example, a power amplifier.

Warranty Information

Warranty Statement

Your ORIA comes with a manufacturer's warranty for three years (36 months) from the date of despatch to the end user.

The warranty covers faults due to defective materials used in manufacture and faulty workmanship only.

During the warranty period Audient will repair or at its discretion replace the faulty unit provided it is returned carriage paid to an authorised Audient service centre. We will not provide warranty repair if in our opinion the fault has resulted from unauthorised modification, misuse, negligence or accident.

We accept liability to repair or replace your ORIA as described above. We do not accept any additional liability. This warranty does not affect any legal rights you may have against the person who supplied this product – it is additional to those rights.

Warranty Limitations

This warranty does not cover damage resulting from accident or misuse.

The warranty is void unless repairs are carried out by an authorised service centre.

The warranty is void if the unit has been modified other than at the manufacturer's instruction.

The warranty does not cover components which have a limited life, and which are expected to be periodically replaced for optimal performance.

We do not warrant that the unit shall operate in any other way than as described in this manual.

AUDIENT