

VEGA G2.2

Streaming DAC



User's Guide



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Welcome

Congratulations on your purchase of the AURALiC VEGA G2.2 streaming DAC. **Please take some time to read through this manual which provides a comprehensive, thorough overview of the products features and functions.**

Our VEGA DACs have won numerous awards for their exceptional sonic performance since their debut in 2012. The VEGA G2.2, the result of over a decade of meticulous research and development, is set to captivate music enthusiasts worldwide. We continuously improve our hardware and software platforms, ensuring that each product release represents a new level of DAC technology. The VEGA G2.2 has undergone a major hardware upgrade that significantly boosts its capabilities—allowing for the integration of future technologies and ensuring that it will remain on the cutting edge for years to come.

Your Vega G2.2 incorporates several powerful features into its unique architecture. One of the most unique features is called **Direct Data Recording**, it completely abandons the use of PLL (phase lock loop) to extract clock signal from incoming signal: VEGA G2.2 records the audio data directly into system memory in binary format, bypassing the original clock signal entirely. As a result, the VEGA G2.2 is immune to the input signal's distortion and jitter, delivering the highest level of sound quality possible.

Based on the values of choice, natural sound, and reliability, our philosophy is a fundamental part of every product we design. Sonically, we engineer both our software and hardware to ensure a neutral and natural sound, allowing you to tailor your musical taste through speaker choice and room setup. As part of our philosophy, we've developed our own software ecosystem. This ecosystem lets us quickly and easily adapt to technological changes or add new features and services, letting you relax and enjoy the music. Your VEGA G2.2 runs on our fast and reliable Lightning streaming platform, allowing you to control different settings in the DAC. It also provides access to the optional streaming components built into your VEGA G2.2 if you would like to connect it to services like Qobuz, Tidal, or Amazon Music Unlimited.

Keeping your VEGA G2.2 current is easy with our over-the-air software updates. We regularly add new features and services, allowing you to relax and enjoy state-of-the-art streaming music. When working as a streamer, your VEGA G2.2 will automatically download and install new updates as we release them. If you use VEGA G2.2 as pure DAC, don't forget to connect it to Internet regularly so it can receive the latest updates.

Welcome to the AURALiC community. We sincerely hope the VEGA G2.2 gives you years of listening pleasure.

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Understanding the Technology

When use it as a streamer, your VEGA G2.2 has the ability to work with different technologies and control software. The most common way to operate your new streamer is in Lightning mode. This is when you take full advantage of our Lightning Streaming Platform by controlling it with our iOS App Lightning DS or another OpenHome protocol based control software. When operating in Lightning mode, there are three fundamental elements to the system: Renderer, Server, and Controller. The Renderer is the physical device that plays the music, e.g. VEGA G2.2. The Server provides the music library. When playing files stored locally on your network, the server can be any UPnP/DLNA media server. If you use an internet streaming service like Qobuz, Tidal, or Amazon Music, that platform acts as the server as well.

The Controller is the software you use to browse and select music. With AURALiC products, you have the freedom to choose from a number of different Controller options. When operating in Lightning mode, you can use our Lightning DS App or any OpenHome protocol based software such as BubbleUPnP or Kazoo as your controller. Operating in this mode allows the Renderer to fetch the music data directly from the Server without passing through the Controller. Since Lightning mode is an integral part of our system, it allows us to apply some advanced technologies, like our memory cache, to optimize the sound quality. This feature preloads the music data from the server into the Renderer's memory, allowing it to be played bit-perfect from the most pristine environment possible.

Your VEGA G2.2 can also work in many ways other than Lightning mode. If you prefer the Roon ecosystem, the VEGA G2.2 will operate seamlessly as a certified RoonReady endpoint. It also works directly with TIDAL Connect, Spotify Connect, and provides the option of an AirPlay or Bluetooth connection. Each of these systems has its own specific operating environment, which requires us to bypass our memory cache system. Some of the other processing features available via Lightning mode may be disabled as well. Your VEGA G2.2 will sound slightly different when using these software options, but not necessarily worse. Each of these systems uses its own technology to optimize for sound quality.

Network Requirements

If you are planning to use your VEGA G2.2 as a streamer, it is very important to be aware the network requirements for proper operation.

Our Lightning streaming technology utilizes SSDP (Simple Service Discovery Protocol), a network package that facilitates communication between Lightning DS and your streaming device. However, poorly designed routers and network switches often mishandle SSDP, causing issues. We have encountered WiFi routers that fail to broadcast SSDP messages effectively between Ethernet and WiFi connected devices or within the same WiFi network. **If you are using a low-cost WiFi router provided by your ISP, it is likely to be insufficient for this task, resulting in difficulties finding the streaming device within Lightning DS or experiencing significant delays in device detection.**

The ability to stream Netflix or play Pandora on your smart speaker does not necessarily guarantee that your router can handle specific multicasting (SSDP) messages without dropouts or block certain (IGMP/ICMP) data packets that AURALiC Lightning devices rely on for optimal performance. In many cases, lower-performing routers provided by your Internet Service Provider may struggle with this type of traffic due to their firmware limitations. Additionally, a weak WiFi connection can also impact the transmission of these UDP discovery data packets, even if your other data connections appear to be functioning as they should.

We recommend upgrading to a high-performance aftermarket router manufactured by reputable brands like Netgear, ASUS, or Linksys to resolve these issues and ensure the best streaming experience.

It's worth noting that some enterprise-level network routers and switches implement additional security measures that require specific configuration to enable SSDP messages, those security measures may also block IGMP/ICMP messages which are essential for your AURALiC devices to join your network properly. If you are using this type of equipment, we advise consulting an IT professional for assistance in setting up the firewall policy correctly.

Warranty

AURALiC offers a 1-Year factory limited warranty from the date of purchase as a general. For devices originally sold and used in EUC or UK, AURALiC offers a 2-Year factory limited warranty from the date of purchase.

The warranty will be extended to three years if the original owner completes the product registration within 30 days from purchase. You could either activate the device inside Lightning DS software under your AURALiC account or fill out the '**AURALiC Product Registration Form**' on page 45 and send it back to support@auralic.com to finish the registration. This extended warranty is nontransferable and for the original owner only.

We recommend registering your device using Lightning DS as it provides the easiest way to complete the registration process. AURALiC values your privacy and does not collect any personal sensitive data during the registration process. To register your device, you will need to provide a valid email address, your name, and the country you are living in. For detailed instructions on how to activate and deactivate your device, please refer to the '**Device Activation and Deactivation**' on page 41.

Warranty coverage includes all parts and labor. Warranty is void if damage is due to abuse, neglect or unauthorized modifications. Costs associated with the return of this product are the sole responsibility of the owner. All repair work must be carried out by AURALiC or by an authorized AURALiC repair agency. Work done by unauthorized persons will void any and all warranty coverage.

AURALiC products are uniquely identified with a serial number (S/N) printed on the label attached under the unit. This number is required to validate your warranty. Please provide your serial number if service is required.

Before the product can be returned for service, an RMA (Return Material Authorization) number must be issued by AURALiC. Contact your dealer or AURALiC for further information. Units without an RMA number will not be accepted for service.



**TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER.
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

IMPORTANT SAFETY INSTRUCTIONS

- All safety and operating instructions must be read before actual operation, and retained for future reference.
- This product should be connected only to the type of power source indicated on the back of the unit. If you are not sure of the type of your mains power supply, please consult your dealer or local power company.
- To completely disconnect this product from the AC mains, disconnect the power supply cord plug from the AC receptacle.
- Do not use the product near water, i.e. near a bathtub, kitchen sink, laundry tub, in a wet basement, near a swimming pool etc.
- Do not install the product near heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat. See “Placement and Cabling” on page 9.
- Do not let objects or liquids fall into the product. Do not expose the product to dripping or splashing. Do not place a vessel containing liquid on top of the product.
- Clean only with a soft, dry cloth.
- Do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltage. Refer all servicing to authorized service personnel. See ‘Support & Contact’ on page 43.

Unpacking

Please check that the following items are in the box:

- VEGA G2.2
- AC Power Cord
- USB Cable
- Lightning-Link Cable
- User's Guide

Carefully unpack the box. If anything is missing or damaged, please notify your AURALiC dealer as soon as possible. Once you have inspected everything, return all the packing materials to the box, and store it in a safe place. You will want to retain the box and packaging as they are specially designed to protect the unit during transportation and shipping.

ONLY SHIP THIS PRODUCT IN ITS ORIGINAL PACKAGING!

Placement and Cabling

Placement

VEGA G2.2 should be placed on a solid and stable surface with good ventilation. Do not install this product near any heat source, such as a radiator or wood stove, or directly above an amplifier that creates significant heat.

Ventilation Requirement

VEGA G2.2 dissipates up to 50 Watts of power during normal operation. It should be installed in a space with at least one inch of clearance above, behind and on both sides of its enclosure to provide adequate ventilation. Avoid placing it directly above other equipment that produces heat.

Due to the distinctive foot damper design of the VEGA G2.2, it is essential to avoid placing any objects on top of the device. The springs within the chassis foot damper are precisely calibrated according to the weight of the VEGA G2.2. Adding extra weight to the unit will compress the springs, leading to a significant impact on the damper performance and potentially compromising the sound quality. It is crucial to refrain from placing additional weight on the machine to ensure optimal performance and preserve the integrity of the sound quality.



VEGA G2.2 chassis foot damper system

Check Your AC Mains Voltage

VEGA G2.2 is shipped with its mains voltage preset for operation in the destination country. The mains voltage setting is written on the back of the unit, besides the power cord socket. There is a jumper inside the machine to set the mains voltage between 110-120V and 220-240V. If it needs to be changed, contact us to obtain additional information.

The power cord has a three-wire grounding type plug (a plug having a third pin for grounding). It will only fit into a grounded power outlet. If you are unable to insert the plug fully into the outlet, contact your dealer or AURALiC. Do not defeat the safety purpose of the grounded plug.

**VEGA G2.2 MUST BE USED WITH THE CORRECT
MAINS VOLTAGE AND PROPERLY EARTHED!**

Fuse Specification

The fuse used inside VEGA G2.2 is one single T1A/250V (1A slow blow) with size of 5*20mm. The fuse is located inside the fuse box at the IEC AC power socket:



It is crucial to replace a fuse with the same rating when necessary. Failure to do so can lead to serious hazards, including but not limited to electric shock, fire, and explosion.

ONLY REPLACE FUSE WITH THE SAME RATING!

Cabling

The I/O ports on the rear of VEGA G2.2:



- **IEC Power Socket and Main Switch**

Power cable connection. Double-check the AC MAIN voltage rating directly below the power socket before connecting to your wall outlet. Please do not use heavy aftermarket power cables without proper support. Excessive cable weight may damage the power cord socket.

The toggle power switch cuts off all power to the unit when the side labeled 'O' is toggled and connects power to the unit when the side labeled 'I' is toggled. Please

make sure to power off all units in your system before changing any cables. Failure to do this may result in permanent damage to your streamer and void any warranty.

ALWAYS POWER OFF VEGA G2.2 BEFORE CABLING!

- **LAN**

The Gigabit Ethernet connection on the VEGA G2.2 allows you to connect it to a wired network and utilize it as a streamer. When connected to the internet, the VEGA G2.2 will automatically receive over-the-air firmware updates, ensuring that you always have the latest software version and features.

If you primarily use the VEGA G2.2 as a DAC and don't have it connected to the internet at all times, it is recommended to periodically connect it to the internet. This will allow you to manually check for firmware updates through the "System" menu and install them when available.

- **AES, COAX, TOS and USB**

The Legacy digital and USB input channels on the VEGA G2.2 offer unique benefits. All input data from these ports is recorded into the system memory and then sent out to the Fusion DAC using its own clock. This approach ensures immunity to input jitter, resulting in high-quality audio reproduction.

It's important to note that due to this unique working method, there is a slight delay from input to output. The buffer delay can be adjusted between 50 to 500ms, allowing you to customize the settings for each individual input channel.

In terms of maximum sampling rates, the AES, COAX, and TOS inputs support up to 192K/24Bit in PCM, as well as DoP packed DSD64. The USB input offers even higher capabilities, supporting PCM up to 384K/32Bit and DSD up to DSD512.

- **L-LINK**

Lightning Link is the preferred connection method if you use the VEGA G2.2 with other AURALiC products that support Lightning Link. The VEGA G2.2 has two Lightning Link connections labeled ARIES and LEO. The ARIES connection is used to receive the input data stream from our ARIES streaming transporter or SIRIUS processor. The connection labeled LEO is for communication with our LEO Reference Master Clock, which is used together with the MCK IN clock input connection.

When using ARIES, VEGA and LEO together, please always connect your LEO directly to the VEGA in order to take full advantage of its performance.

Lightning Link uses an HDMI connector, but it is neither an HDMI port nor an I2S output. Please do not attempt to connect it to any HDMI or I2S device. Select 'Lightning Link' as the output channel inside the device menu to activate it. The maximum sampling rate supported by Lightning Link is 32Bit/384kHz PCM or DSD512.

- **MCK IN**

Clock signal input for AURALiC LEO Reference Master Clock. Adding LEO to your VEGA G2.2 will boost overall sound quality. Please refer to LEO GX.1 user's guide for detailed instructions.

- **eARC***

The VEGA G2.2 features an HDMI eARC (Enhanced Audio Return Channel) input channel. The eARC function of the VEGA G2.2 supports CEC (Consumer Electronics Control) commands such as standby control and volume control. It also supports lip sync, ensuring that audio and video are synchronized properly.

The eARC channel on the VEGA G2.2 supports a maximum sampling rate of 24Bit/192K, providing high-quality audio playback. It is important to note that the eARC channel on the VEGA G2.2 only supports 2-channel uncompressed audio.

**eARC channel on the VEGA G2.2 is currently disabled pending HDMI certification. However, if your VEGA G2.2's firmware version is 10.0 and above, the eARC channel will be fully functional.*

- **ANALOG IN**

The VEGA G2.2 features a true analog preamplifier function, providing a high-quality analog signal path. When using the analog input channel, the audio signal remains in the analog domain without being converted to digital, ensuring the best possible sound quality.

The analog input of the VEGA G2.2 supports a maximum signal level of 2Vrms, allowing you to connect various analog audio sources with ease. When the preamplifier function is enabled, there is a 6dB gain from input to output while the volume is at maximum. If the preamplifier function is disabled or the HT Bypass function is enabled, the analog input will be in bypass mode with unity gain. This

allows you to use the VEGA G2.2 in a system where external preamplification or home theater integration is preferred, ensuring a seamless and flexible integration into your audio setup.

- **RIGHT/LEFT OUT**

The VEGA G2.2 features both balanced (XLR) and single-ended (RCA) analog outputs, which are individually buffered and can be used simultaneously. However, it is recommended to disconnect any unused ports to prevent potential electromagnetic interference caused by cables.

When the preamplifier function is enabled, the maximum output level can be set to either 2Vrms or 6Vrms for both the XLR and RCA outputs, depending on the user's preference. When the preamplifier function is disabled, the output is fixed at 2Vrms.

The XLR output of the VEGA G2.2 has a very low output impedance of 4.7 ohms, making it suitable for driving a wide range of power amplifiers. It is crucial to exercise caution and avoid shorting any pin of the analog outputs to ground on the VEGA G2.2. Specifically, it is advised against using XLR to RCA adapters that inadvertently short the negative pin to ground. Such a connection has the potential to cause damage to the device and void any warranty of your VEGA G2.2.

Front Panel

The front panel of VEGA G2.2:



- **Rotary Knob**

The VEGA G2.2 is equipped with a rotary knob that offers both rotation and press functionality. The knob can be rotated in either a clockwise or counterclockwise direction, allowing for 20 steps for a full cycle. In the "Playing" screen, rotating the knob will adjust the volume level. When navigating through menus, the knob can be turned to select different menu options.

The press operation of the knob serves as the power on/off function. For more detailed information about power management, please refer to 'Power Management' at page 16 for more information.

- **Headphone Output**

There are two 6.35mm headphone jacks on the front panel for monitor use. The jacks are not individually buffered and are connected together inside VEGA G2.2.

- **Front Panel Display**

The 4-inch high-resolution true color display on the front panel gives you full access to VEGA G2.2 settings as well as displaying enriched metadata.

Power Management

VEGA G2.2 is equipped with advanced power management system which allows true on/off, low power standby and sleep mode.

Power On/Off

The AC power to your VEGA G2.2 can be controlled using the toggle switch located on the back of the device. This switch directly manages the flow of AC power to the unit. We recommend completely switching off the device using the toggle switch if you do not plan to use it for an extended period, such as during a vacation trip.

Standby

Once the toggle switch is set at 'I' position, your VEGA G2.2 will enter standby mode automatically. The standby mode uses very little power as most of the circuits inside the machine are powered off. In standby mode, your machine is off from network and will not react to any programmed IR remote control command.

To wake the machine from standby mode, press the knob briefly on the front panel. Within a few seconds, the front display will illuminate, and your VEGA G2.2 will begin the boot-up process.

Sleep

Sleep mode allows most circuits inside your VEGA G2.2 to remain powered on while staying connected to your home network. This mode uses more power but avoid the need to warm up internal circuit every time you start your listening session. In this mode, the device will appear in Lightning DS as a device under sleep mode when you use VEGA G2.2 as a streamer.

To wake the machine from sleep mode, you have multiple options. You can use Lightning DS app if you use VEGA G2.2 as a streamer, utilize a programmed IR remote control, or simply press the knob briefly on the front panel.

Pressing and holding the VEGA G2.2's rotary knob for approximately 3 seconds will trigger a popup window on the device's front display. This window allows you to choose between putting the device into standby mode or sleep mode. By rotating the knob, you can select your desired option, and then press the knob briefly to confirm your selection.

Force Off

In the rare event that your VEGA G2.2 becomes unresponsive or fails to start, you can perform a force off operation by pressing and holding the knob for 7 seconds. This action will reset the system put the VEGA G2.2 back into standby mode. To restart the device, simply press the knob briefly once again, and it will begin the boot-up process.

Connect VEGA G2.2 to a Home Network

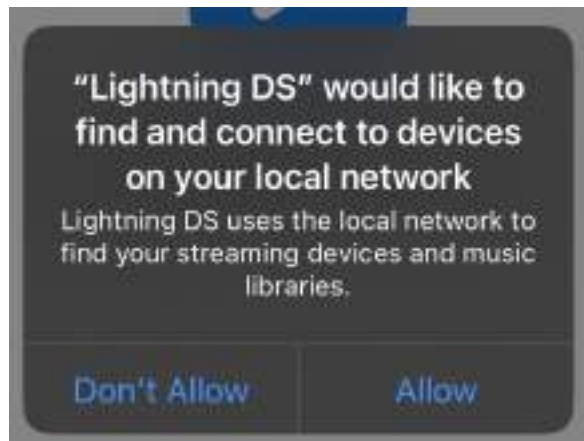
Connecting your VEGA G2.2 to your home network is a relatively easy process. There are two different methods you can use for setup: Lightning DS setup guide, or device front panel control.

Before proceeding with the setup of your VEGA G2.2, it's important to ensure that ICMP (Internet Control Message Protocol) and IGMP (Internet Group Management Protocol) packets are not being blocked on your router/firewall/switch. Your VEGA G2.2 will not be able to join home network if ICMP/IGMP is disabled.

Use Lightning DS Setup Guide

Lightning DS is the control software that AURALiC created to use with its streaming devices. You can install Lightning DS on any iPad or iPhone running iOS 11 or above. Lightning DS can also be installed on any Mac computer with Apple Silicon processor.

To begin, download Lightning DS from the Apple App Store. Once it is installed and you open the App, a window will pop up with this message:



Please make sure you choose '**Allow**'. Lightning DS will not be able to connect to your VEGA G2.2 if you choose 'Don't Allow' option.

Next, you will be prompted to select your language. Once you have selected your language preference, Lightning DS will display the End User License Agreement (EULA.) Please read this agreement carefully and select 'Agree'. If you do not agree with the EULA, please return your unit to the seller immediately.



At the welcome screen, choose ‘**Setup Lightning Device**’ option then select ‘**Setup New Device**’ to start a step-by-step setup guide. It will lead you to configure your VEGA G2.2 to join your home network.

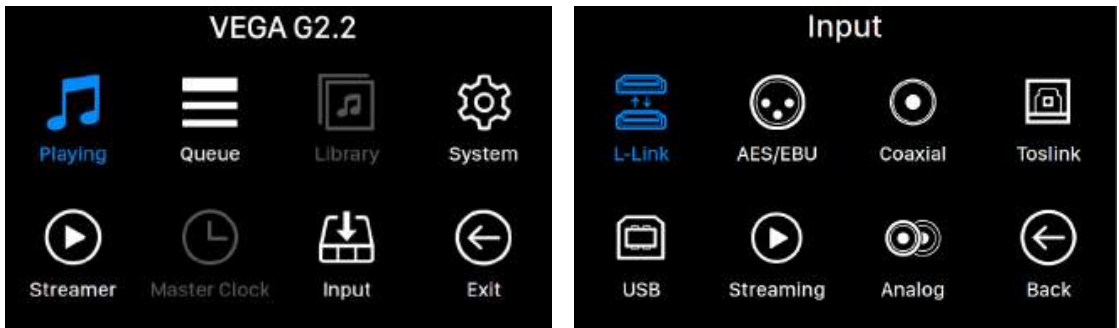


Use Front Panel Control

You can use VEGA G2.2's front panel control to join home network. Connect Ethernet cable to 'LAN' port on the back of VEG AG2.2 then connect the power cord to your VEGA G2.2, switch on the main power by putting toggle switch to the 'I' position, press the 'Power' button on the front panel to start up the device.

After a few seconds of powering on the VEGA G2.2, the front display will illuminate, displaying the AURALiC logo as an indication that the device is starting up. If you are setting up a brand-new device, you will be prompted to select the device language.

By pressing the rotary knob, you can access the root menu. Rotate the knob to navigate the options and push the knob to select the "Input" menu. In the "Input" menu, you should see the 'Streaming' channel illuminated (not greyed out). Rotate the knob to highlight 'Streaming' input channel and push the knob to select it. The VEGA G2.2 will then attempt to connect to the selected network. During this process, the front display will show a loading animation. If the 'Streaming' input channel could not be selected (greyed out), please check the network cable, and make sure your VEGA G2.2 is properly connected to your home network.



Once the device has jointed home network successfully, you will see the 'Welcome' screen, which displays basic information about your device:

AURALiC

VEGA G2.2 - Ver.9.1

Wired : 192.168.1.38

Once you have successfully configured your VEGA G2.2 to join the network, you no longer need to use the Lightning DS device setup guide for further configuration. In the Lightning DS app, you can choose **'Setup Lightning Device' > 'Add Existing Device'** at start up screen. Your VEGA G2.2 should appear in the list of available devices. Simply select it and start using the app.

Setup Music Library and Streaming Service

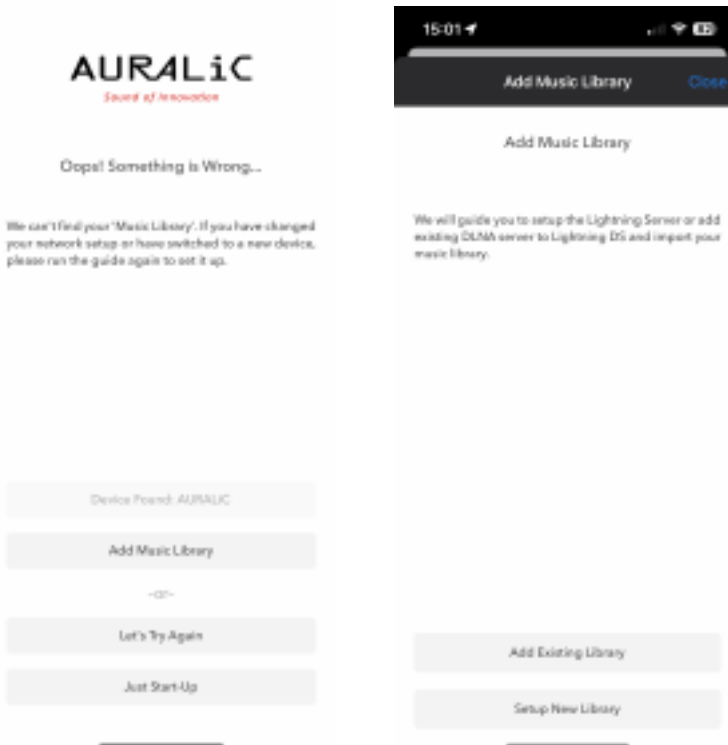
After you have successfully configured your VEGA G2.2 to connect to your home network, it's time to bring your music to the system. However, if you exclusively use Roon software or rely solely on TIDAL Connect, Spotify Connect, or AirPlay, you may skip this chapter.

Please note that VEGA G2.2 does not have a built-in DLAN/UPnP media server. You will need to have your existing media server in your home network if you want to play music store locally. We recommend using Minimserver for the best compatibility.

If you use online streaming exclusively, you can skip the next section and jump to 'Add Streaming Service in Lightning DS' on page 23.

Add UPnP/DLNA Media Server as Music Library

At Lightning DS start up screen, choose 'Add Music Library' option then select 'Add Existing Library'.

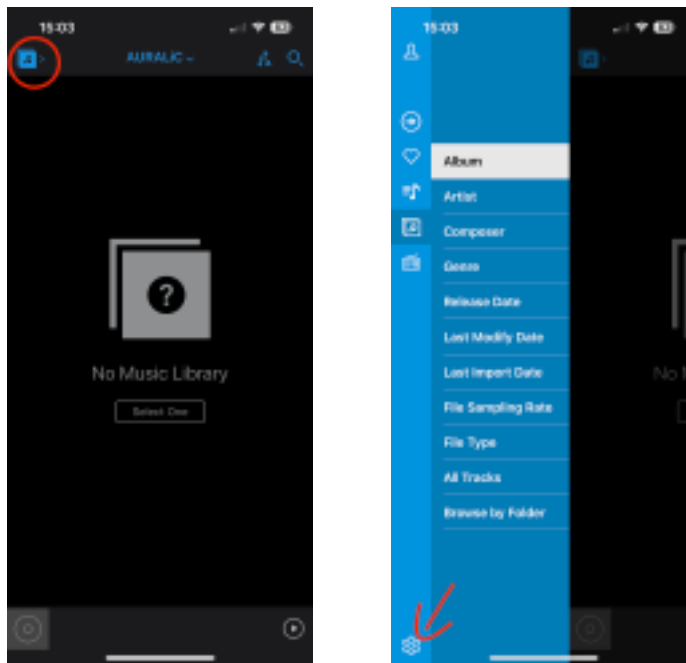


Lightning DS will scan and show all available UPnP/DLNA media servers in your network. Select the one that you are currently using then click 'Next'. The setup guide will start creating an index of this media server on your iOS device.

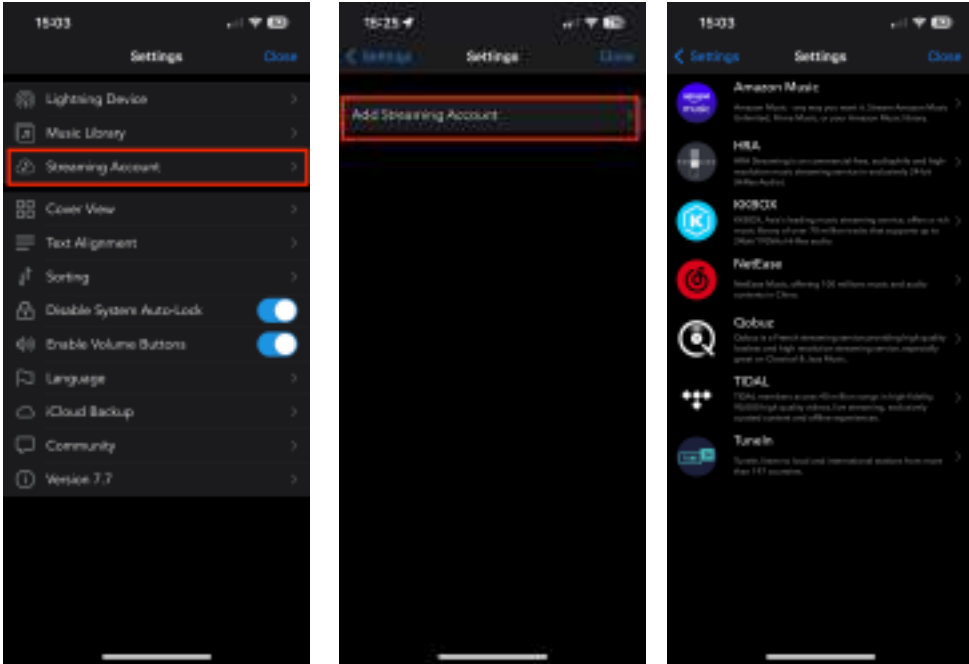
Add Streaming Service in Lightning DS

If you don't have any locally stored music and intend to solely stream music online using your VEGA G2.2, you can bypass the media server setup steps. Simply select either the **'I Will Set Up Later'** or **'Just Start-Up'** option on the Lightning DS startup screen. This will allow you to proceed directly to using Lightning DS for online music streaming without setting up a media server.

To log in your streaming service account, click on the blue navigation icon at the top left of the screen. This will open the blue navigation side menu. Locate and click on the blue gear icon at the bottom left corner of the menu. This will take you to the **'Settings'** menu.



Select **'Streaming Account'** option then click **'Add Streaming Account'**. The streaming services that are currently being integrated inside Lightning DS will be listed here:



If you wish to stream a service that is not currently integrated within Lightning DS, you have the option to use alternative software. For more information on how to do this, please refer to the **'Use with Other Software'** section on page 40 of the user manual.

Display and Operation

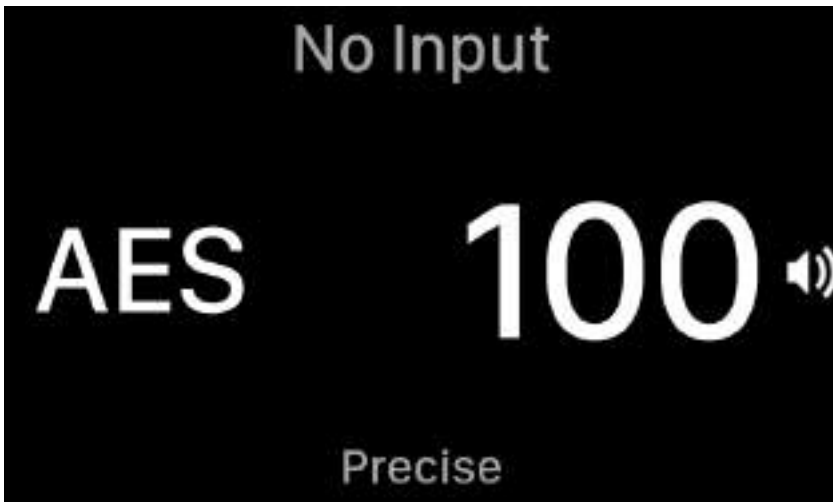
The front panel rotary knob, along with the 4" display, provide a convenient interface for users to complete hardware-related setup tasks and view the current playback status when the VEGA G2.2 is in use. However, for an optimal setup experience, we highly recommend accessing and configuring all settings through the **Lightning web control interface**. This web-based interface offers a more comprehensive and user-friendly way to set up your VEGA G2.2, providing access to a wider range of options and features. Please refer to page [31](#) for more information about Lightning web control interface.

Welcome Screen

The welcome screen of the VEGA G2.2 varies depending on the input channel in use.

When using the VEGA G2.2 with digital or analog input, the welcome screen displays important information such as the current input channel, volume level, mute status, input channel sampling rate, and digital filter setting.

If you have an Ethernet cable connected to your VEGA G2.2, you can access the Lightning Web Control interface to manage your device remotely. To find the IP address of your VEGA G2.2, navigate to the '**System**' menu and look for the '**Network**' section. Here, you will be able to view the IP address associated with your device.



When using the VEGA G2.2 with its streaming input, the welcome screen provides essential details including the device model, firmware version and IP address. This information is helpful for network setup and accessing the Lightning web control

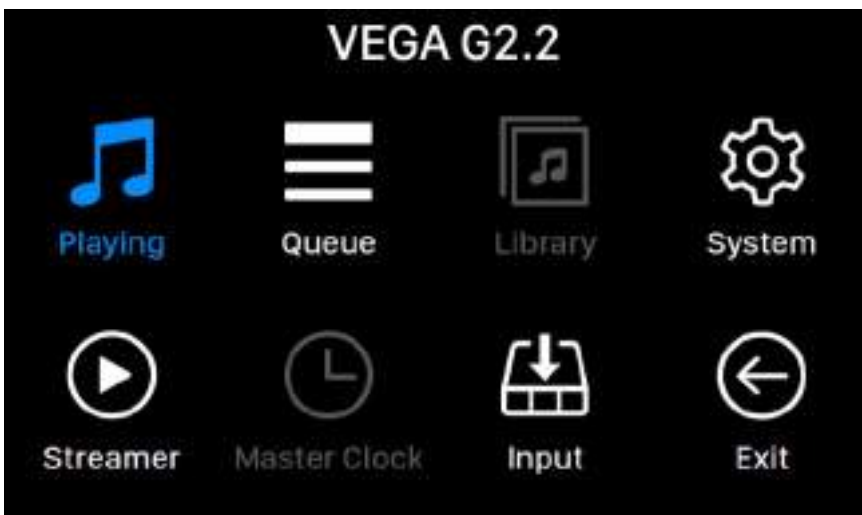
interface. Simply enter the displayed IP address into a web browser to access the interface and manage your VEGA G2.2 remotely.



When your VEGA G2.2 is set to the streaming input, the welcome screen will remain on display until you start playing a song using a control software. Once you start playing a track, the interface will transition to the 'Playing' screen, where you can view the current playback information and control the playback functions.

You can press the knob at the front panel to exit welcome screen and enter main menu.

Main Menu



The main menu serves as the root level menu for your VEGA G2.2, offering access to eight different destinations. Here is an overview of each destination available from the main menu:

1. **'Playing'**: This destination displays track information, playback status, playback mode (shuffle, repeat), and volume control.
2. **'Queue'**: Here, you can view the current queue of tracks in the VEGA G2.2 and select individual tracks for playback.
3. **'Library'**: This interface is currently unavailable and reserved for future development.
4. **'System'**: Access general hardware-related settings, including network information, output channel configuration, display language, and more.
5. **'Streamer'**: Configure settings specific to the streaming software on your VEGA G2.2.
6. **'Master Clock'**: Access settings for any Lightning Link-connected Master Clock, such as the LEO GX.1 (if applicable).
7. **'Input'**: Select VEGA G2.2's input channel.
8. **'Exit'**: Exit main menu and go back to welcome screen.

To navigate the main menu, turn the knob to highlight a destination, and press the knob to select it.

Playing



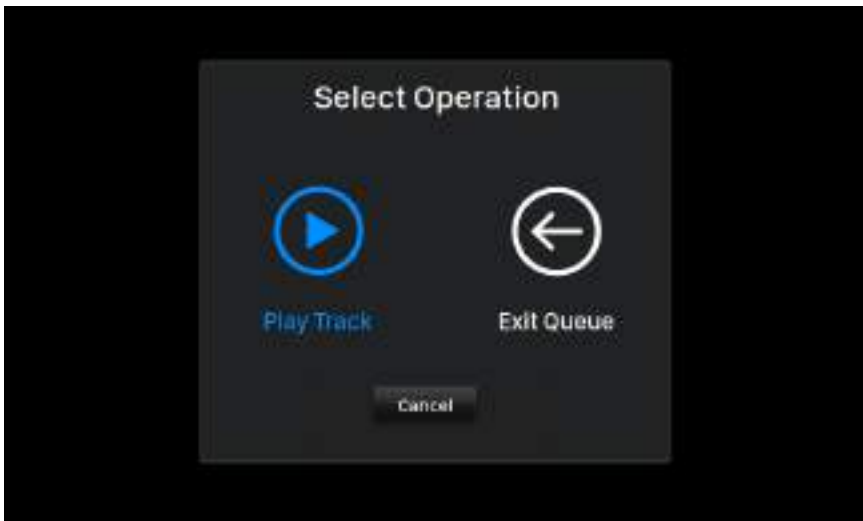
Playing interface displays playback status, track progress, playback mode, volume, and metadata for the current track. Rotate the knob clockwise or counterclockwise to adjust volume and press the knob to exit the Playing interface.

Queue



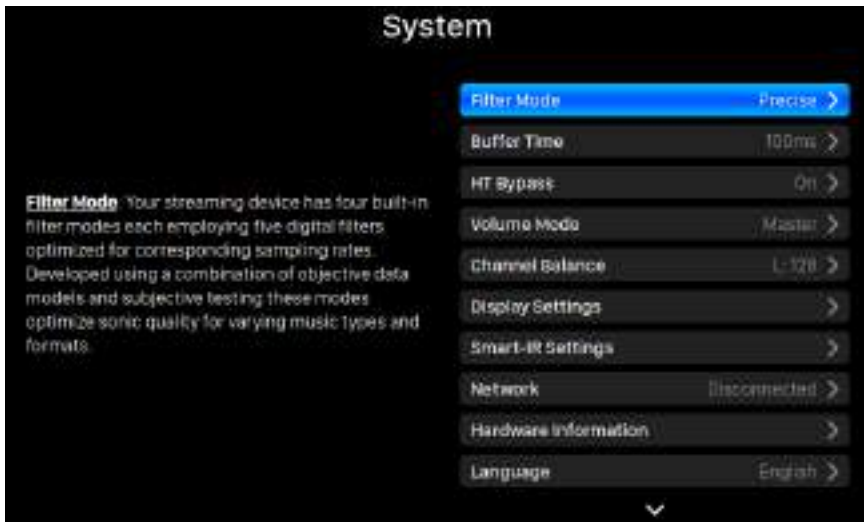
1	Oh, Good Grief	2:24
2	Pebble Beach	2:51
3	Happiness Is	3:43
4	Schroeder	1:54
5	Charlie Brown Theme	4:24
6	Linus & Lucy	3:07
7	Blue Charlie Brown	7:29
8	Baseball Theme	3:17

The 'Queue' menu shows the current playback queue stored in the device's memory. Use the rotary knob to scroll through the tracks and press the knob to open the 'Select Operation' popup menu:



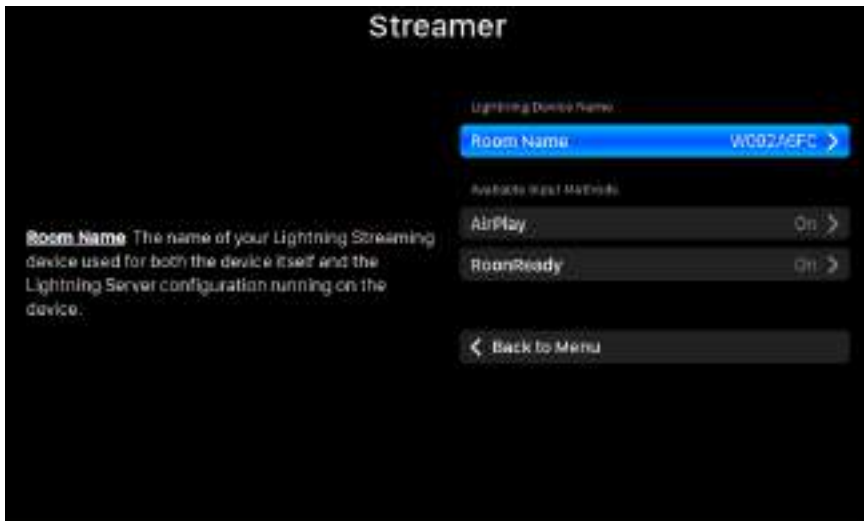
In the popup menu, choose 'Play Track' to start playing the selected track immediately. Select 'Exit Queue' to close the 'Queue' menu and return to the main menu.

System



The 'System' menu in Lightning DS encompasses general hardware-related settings for your VEGA G2.2. When navigating the 'System' menu, use the rotary knob to scroll through the tracks then press the knob to enter selected menu.

Streamer



The 'Streamer' menu contains all streaming and rendering related setup options. When navigating the 'System' menu, use the rotary knob to scroll through the tracks then press the knob to enter selected menu.

Master Clock

The 'Master Clock' menu will light up and accessible when a LEO is connecting to VEGA G2.2 via Lightning Link corresponding. You will be able to view the current working sampling rate and working status of your LEO master clock.

Input



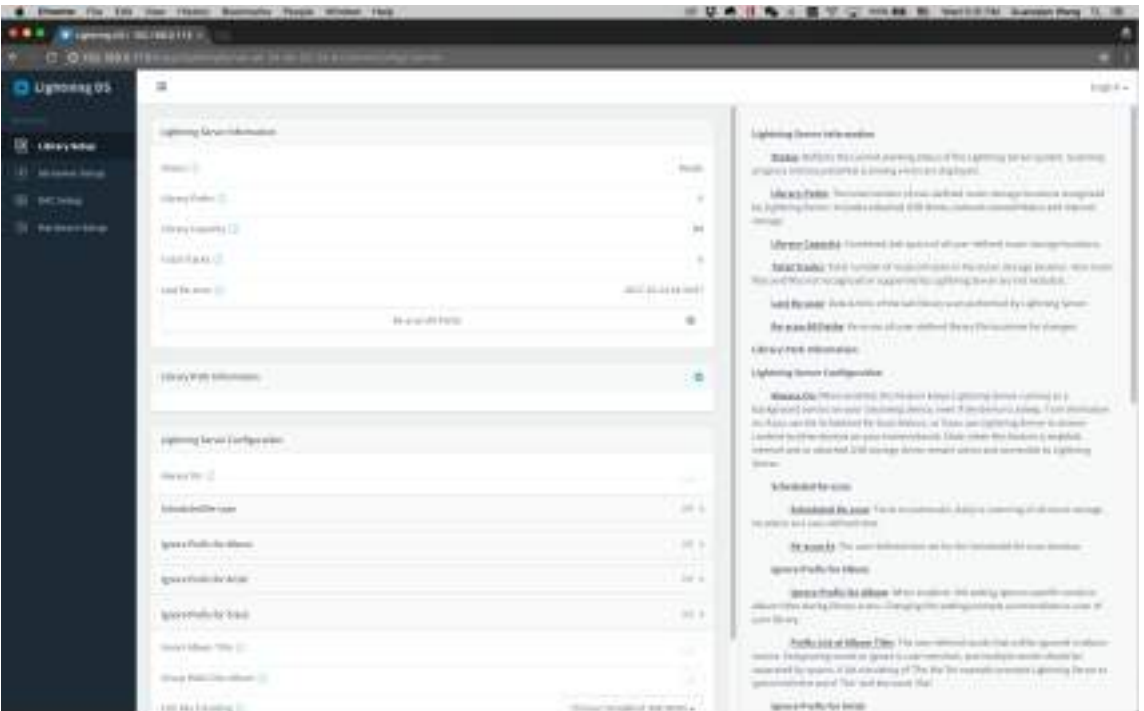
The Input menu allows you to select the physical input channel of the VEGA G2.1. Rotate the knob clockwise or counterclockwise to highlight an input channel then press the knob to select it. The L-Link (Lightning Link) input channel will only be available to select when VEGA G2.2 is connecting to a valid Lightning Link source.

While the front panel rotary knob provide access to the settings of your VEGA G2.2, it's worth noting that you can easily access and configure all the settings through the Lightning web control interface. The web interface offers a more comprehensive and user-friendly way to manage the Lightning Server and access your music library.

Lightning Web Control Interface

The Lightning web control interface provides a user-friendly way to access and configure hardware settings for AURALiC streaming devices. You can access the web interface using any laptop, tablet, or desktop computer with a compatible web browser. Follow these steps to access the Lightning Web Interface:

1. On the welcome screen of your AURALiC streaming device, note the device's IP address displayed.
2. Open a compatible web browser such as Google Chrome or Safari on your laptop, smartphone, or desktop computer.
3. Enter the IP address of your AURALiC streaming device, as shown on the welcome screen, into the address bar of the web browser.
4. Press Enter or Go to load the Lightning Web Interface.



The Lightning web control interface consists of three sections:

1. Navigation menu on the left: This menu provides navigation options to access different sections and settings within the interface. It allows you to easily switch between different setup options and features.
2. Main setup options in the middle: The central section of the interface displays the main setup options and configuration settings for your AURALiC streaming

device. This is where you can make adjustments and customize various aspects of your device's functionality, network settings, streaming options, and more.

3. Setup guide on the right: The right section of the interface provides a setup guide or additional information to assist you in configuring your AURALiC streaming device. It may offer step-by-step instructions, tips, and explanations for specific settings or features.

With these three sections in the Lightning web control interface, you have easy access to navigate through the different menus, configure the setup options, and refer to the setup guide for assistance or additional information as needed.

Smart-IR Remote Control

Our Smart-IR feature is an intuitive way to eliminate the clutter of an additional remote in your listening room. This easily programmable feature allows you to control the operation of your AURALiC product with a remote that you already have. Our system is basically the reverse of a learning remote. With Smart-IR, you choose a function on the VEGA G2.2 you would like to access via the remote control, and then by pressing any button on the remote, teach your VEGA G2.2 to respond to that specific IR code.

To explain this advanced technology, we have created a step-by-step video guide helping you understand and use this feature. Please scan the QR Code below to view the video:



<https://us.auralic.com/pages/auralic-smart-ir-feature>

If you do not have a remote for your VEGA G2.2 and would like to use one, AURALiC offers a generic remote that are compatible with VEGA G2.2. You can order this remote by contacting your local AURALiC dealer, distributor, or reaching out to AURALiC directly.

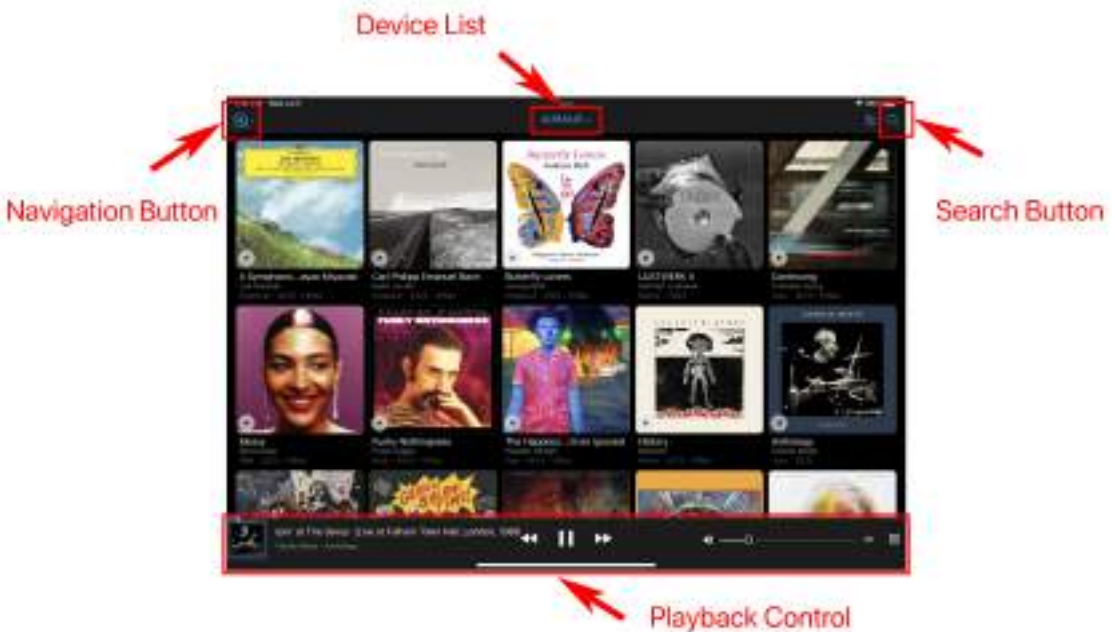
Lightning DS

Lightning DS is an iOS-based software designed to provide a comprehensive and intuitive user interface for controlling and managing AURALiC's streaming devices, including ARIES, VEGA and ALTAIR family products. With Lightning DS, users can access and organize their digital music libraries, stream music from various sources, such as local storage, online streaming services, or internet radio, and control playback on AURALiC devices.

Lightning DS offers features like playlist and user collection management, search functionality, and extensive metadata support, making it easy to navigate and find desired music. The software also integrates with popular streaming services like Tidal, Qobuz, Amazon Music Unlimited, enabling seamless access to their vast libraries. Additionally, Lightning DS supports multi-room audio, allowing synchronized playback across multiple AURALiC devices in different rooms.

Main Interface

The following introduction is based on the interface displayed on a tablet screen. The interface may appear slightly different on a mobile device, but the essential elements remain the same. When Lightning DS is launched, you will encounter the following interface:

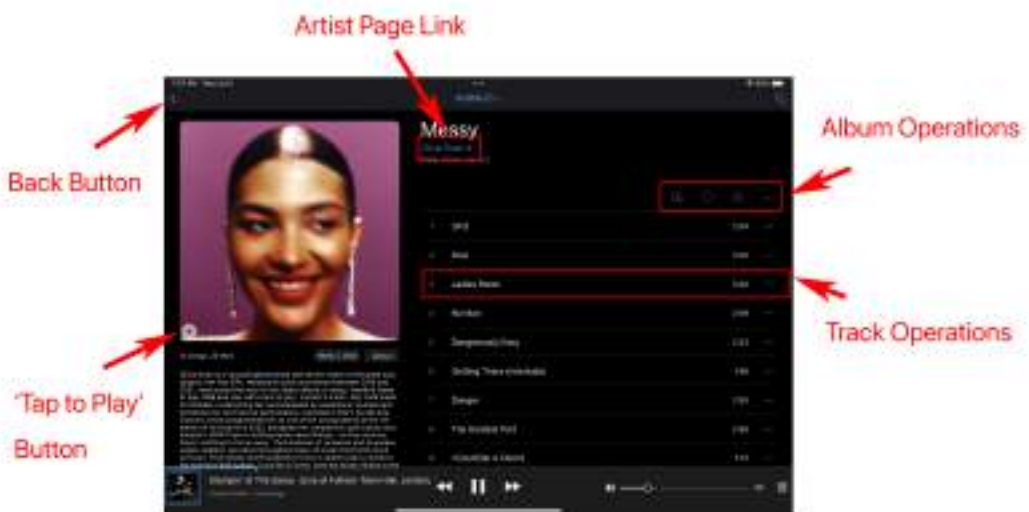


Aside from the obvious library content showing in the middle of the screen, the Lightning DS interface includes several key elements. Here is a description of each element:

- **Device List:** The currently selected streaming device name is displayed in the middle of the top navigation bar. Clicking on the device name will open the device list window, allowing you to select a different streaming device if available.
- **Navigation Button:** At the main interface level, this button activates the side menu. You can use the side menu to switch between different content sections. When browsing your music library, the navigation button transforms into a **back button**. Briefly pressing the back button will return you to the previous interface, while holding the back button opens the side menu.
- **Search Button:** Clicking on the search button opens the search bar, where you can search for music among your local library and online streaming sources. This feature helps you quickly find specific tracks, albums, or artists.
- **Playback Control:** This section displays the current playing music. It includes transport controls for previous track, play/pause, next track, and volume control. Additionally, it shows the queue list, allowing you to manage the playback order. Clicking anywhere in this section will open the full 'Queue' interface, providing a detailed view of the current playback queue.

Album Information

You can tap the small 'Play' button at the left bottom corner of the album cover to instantly play selected album or tap the album cover to enter album information:



The Album Information interface provides comprehensive details about a specific album. Here are the key elements to mention:

- **Artist Page Link:** If available, the artist name will be displayed in blue color, indicating that an individual page about the artist is accessible. Clicking on the artist name will redirect you to the artist page, where you can find more information about the artist and their other works.
- **Album Operations:** This section contains four icons that allow you to perform operations at the album level. For example, clicking the heart icon indicates that you want to add the album to your collection or favorites.
- **Track Operations:** Each individual track within the album can be tapped to perform specific operations. Tapping a track adds the entire album to your device's queue and starts playing the selected track. Additionally, tapping the '...' icon provides access to additional track-related operations.
- **Back Button:** Tapping the back button briefly will take you back to the previous interface, allowing you to navigate through your music library seamlessly. Pressing and holding the back button opens the side menu, providing quick access to various sections and settings within Lightning DS.

Playback Control

At the bottom of the main interface, you will find the playback control section, which provides quick access to essential transport-related control functions. Here are the key elements to mention:

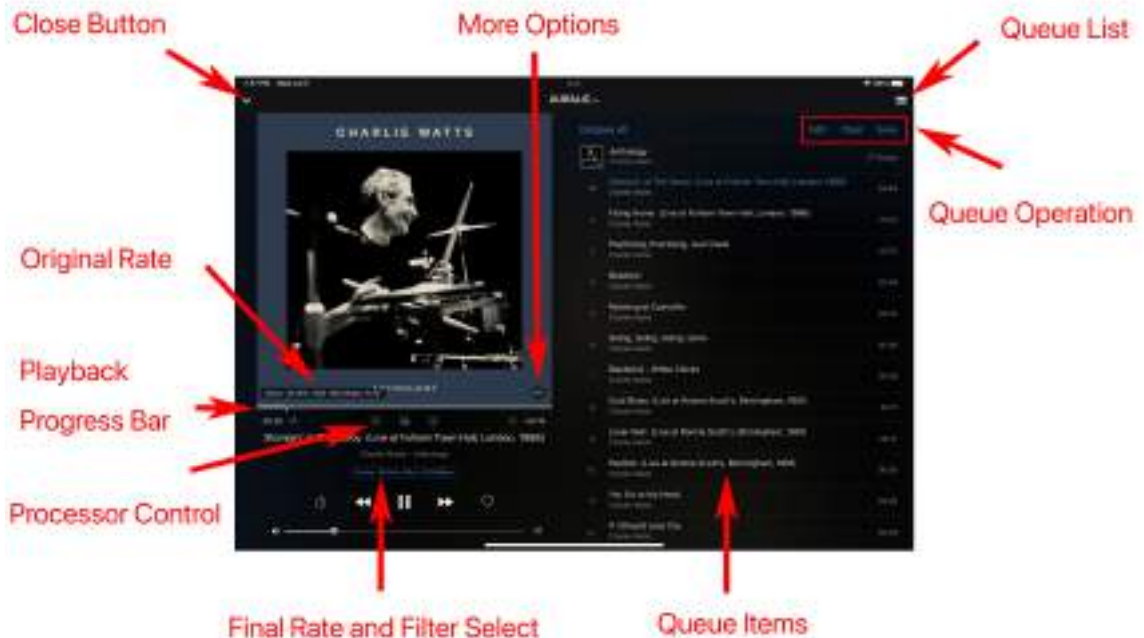


- **Previous, Play/Pause, Next Buttons:** These three buttons in the middle of the playback control section are the primary track control buttons. It's worth noting that if you click the previous button after the playback progress has exceeded 5 seconds, Lightning DS will jump to the beginning of the current track and play from there. If the playback progress is less than 5 seconds, it will jump to the previous track in the device's playback queue.

- **Playback Progress Bar:** The small blue line represents the approximate percentage of the track currently being played. You can press and drag the marker on the progress bar to seek to a specific position within the track.
- **Currently Play:** This area displays metadata information about the track that is currently playing. You can tap on this area to open the 'Queue' interface and get more details about the current playback.
- **'Mute' Button and Volume control:** This area allows you to adjust the volume level and quickly mute or unmute your device's audio output.
- **Queue List:** Tapping this icon will open a small pop-up window that displays the tracks currently stored in the device's queue. This allows you to view and manage the playback order, add or remove tracks, and make changes to the queue as desired.

Queue Interface

In the queue interface, you have full control over playback-related operations and access to some hardware control functions. Here are some key points to remember:



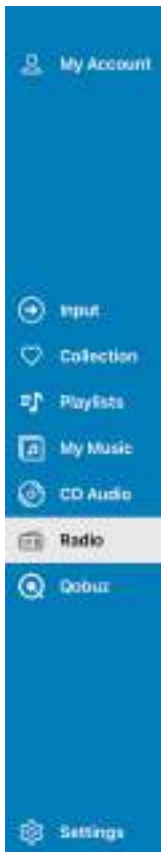
- **Original Rate:** The original rate section displays information about the source of the music, including the sampling rate, bit depth, file bitrate, and format details. This information is displayed briefly and can be accessed again by tapping the album cover. It provides valuable insight into the quality and characteristics of the music being played.
- **More Options:** Tapping the '...' icon on the album cover opens a small pop-up

window that offers additional options. You can access more information about the track, add it to your collection or a playlist, or jump to the album to which the track belongs. This feature is particularly useful when streaming music from online service providers.

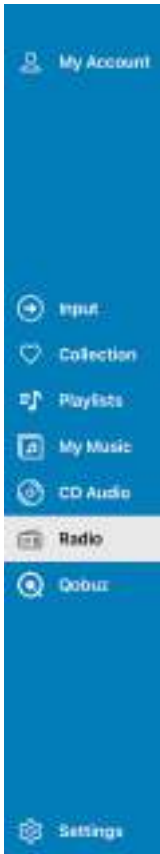
- **Processor Control:** If available, individual processor function icons will be displayed in this section. You can click on these icons to access their settings or enable/disable the corresponding functions. This allows you to customize and optimize the audio processing according to your preferences.
- **Final Rate and Filter Select:** The final output sampling rate, bit depth, and bitrate are shown in this section. These values represent the data streaming directly to the output circuit of the device, such as DAC. If this section is displayed in blue color, it indicates the availability of a filter selection option. You can click on it to view and change the filter settings, tailoring the audio output to your desired characteristics.

Side Menu

The side menu in Lightning DS provides convenient navigation and allows you to switch between different features and sections of the app.



- **My Account:** This option allows you to register an AURALiC account and manage the streaming devices you have purchased. Refer to the 'Device Activation and Deactivation' section for detailed information.
- **Input:** The input menu enables you to switch between different physical and virtual input channels of your device. For virtual input channels like Lightning, Radio, AirPlay, and others, the switching is automatic without the need for manual operation.
- **Collection and Playlist:** This section contains your favorite tracks and customized playlists that are stored on your specific iOS device. If you want to transfer this data to different devices, you can use the '**iCloud Backup**' function in the Settings menu.
- **My Music:** This option displays the music library stored locally on your selected media server. You can browse and access your music collection from this menu.
- **CD Audio:** If you have selected the current machine's Lightning Server as the music library and have a USB CD drive connected to the back of ARIES or ALTAIR family product with an audio CD inside, this option will appear. You can use this



menu to play CD audio.

- **Radio:** This option allows you to access the internet radio function. The internet radio service is provided by vTuner, and you may also have the option to use TuneIn as a radio service provider. To use TuneIn, you will need to register or log in through the Streaming Account menu.
- **Qobuz/TIDAL/etc:** After successfully logging in to a streaming account within Lightning DS, the individual service name (e.g., Qobuz, TIDAL) will appear under the side menu. You can navigate and browse the library of the specific service provider from this menu.
- **Settings:** Access to all Lightning DS and hardware related user settings.

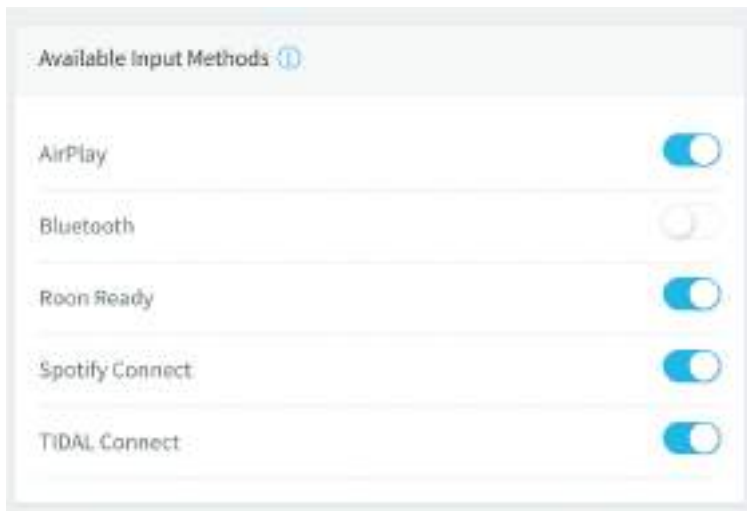
Useful Tip: To quickly activate the side menu in Lightning DS without having to click the back button multiple times to navigate to the main level, you can simply press and hold the back button. This action will immediately activate the side menu, allowing you to access its options and navigate to different features or sections of the app. It's a convenient shortcut that saves you time and makes it easier to switch between different parts of Lightning DS's interface.

Use with Other Software

While Lightning DS is the recommended software for operating your VEGA G2.2, you have several other options available for controlling and streaming with the device. Here are some additional software and ecosystems that are compatible with the VEGA G2.2:

1. **OpenHome Software:** VEGA G2.2 is fully compatible with any control software that supports the OpenHome protocol, such as BubbleUPnP, BubbleDS, and Linn Kazoo. These applications allow you to control and stream music to your VEGA G2.2 in Lightning mode as well.
2. **Roon:** VEGA G2.2 works as a Roon Ready endpoint, allowing you to integrate it seamlessly with the Roon software ecosystem. This enables you to control and stream music to your VEGA G2.2 directly from the Roon interface.
3. **TIDAL Connect, Spotify Connect:** The VEGA G2.2 supports TIDAL Connect, Spotify Connect. With these features, you can easily stream music from TIDAL, Spotify, or compatible devices directly to your VEGA G2.2 without the need for Lightning DS.
4. **AirPlay.** VEGA G2.2 is fully compatible with Apple AirPlay 2 protocol. You can stream music from services like Apple Music and Deezer by using the official music software on your iOS device or Mac computer and sending the audio signal to your VEGA G2.2 via an AirPlay connection.

Although no additional setup or input switching is required for these functionalities, please ensure that the corresponding option under 'Available Input Methods' is enabled in your VEGA G2.2 settings if you intend to use any of these features. This allows seamless integration and automatic connection with the respective software or ecosystem you choose to utilize.



Device Activation and Deactivation

Activating your AURALiC product is a straightforward process that extends the basic factory warranty and makes hardware logging available for troubleshooting. The activation process is optional; forgoing it will not affect device function or performance. Please scan the QR Code below to view our step-by-step video:



<https://us.auralic.com/pages/activate-and-deactivate-your-auralic-streamer>

If you have purchased a used product and it's still registered to the previous owner, you have a couple of options. Your first step should be to contact the person you purchased the unit from and ask them to deactivate it remotely. This can be done by the previous owner using Lightning DS installed on any IOS device they may have.

Once they have started Lightning DS they can choose the option of “I Will Set Up Later”, or “Just Start-Up” if the app was previously configured. The previous owner now needs to log into their AURALiC account and deactivate the product. This process can also be done without the unit connected.

If the previous owner refuses to help or cannot deactivate the unit, you should arrange for a refund and return the unit immediately, as the device may not be authentic. If you purchased your AURALiC product second-hand from a dealer, you should contact them for help deactivating the unit. AURALiC will not directly deactivate a device upon request by a new owner for legal reasons.

Cleaning

To maintain the cleanliness of the enclosure, it is recommended to follow these cleaning instructions:

1. Use a soft, dry cloth: Regularly wipe the enclosure with a soft, dry cloth to remove dust and smudges. This helps to keep the surface clean and free from debris.
2. Dish soap and magic eraser: If the enclosure is heavily soiled or dirty, you can use a mild dish soap along with white-colored 'magic eraser' sponges. Dampen the sponge with water, apply a small amount of dish soap, and gently rub the surface of the enclosure.
3. Dry with a microfiber cloth: Use a clean microfiber cloth that has been slightly dampened with water to gently dry the surface. Microfiber cloths are gentle and effective in absorbing moisture without leaving lint or scratches on the surface.

Remember to avoid using harsh chemicals, abrasive materials, or excessive moisture on the enclosure, as these can potentially damage the finish or electronic components. By following these cleaning guidelines, you can keep your VEGA G2.2 enclosure looking clean and well-maintained.

Support & Contact

For support or service inquiries related to your VEGA G2.2, it is recommended to first contact the **dealer** or **distributor** from whom you purchased the device. They have a better understanding of your system and can provide personalized assistance.

If you have general questions about using your VEGA G2.2 or Lightning DS software, there are two valuable online resources available:

- **Community Forum:** The AURALiC community forum is a friendly and experienced online community where you can find discussions on a wide range of topics. It welcomes new members and offers a wealth of knowledge and support. You can access the forum at **community.auralic.com**.
- **Knowledge Center:** AURALiC's extensive knowledge center is another valuable resource for information and assistance. It provides detailed guides, tutorials, and troubleshooting tips. You can access the knowledge center at **support.auralic.com**.

If your VEGA G2.2 experiences any issues, it is important to contact your dealer or AURALiC for assistance. Attempting to repair or service the device yourself or engaging unauthorized personnel may void the warranty. To initiate a service request, an RMA (Return Material Authorization) number must be issued by AURALiC. You can contact your dealer or AURALiC for further information on the service process.

If your VEGA G2.2 is out of warranty and you possess the necessary skills to service the device, AURALiC can provide you with the required information and service parts to assist you.

For additional help or service requests related to your VEGA G2.2, you can contact AURALiC's technical support department at **support@auralic.com**.

When you contact our support department, please make sure to include the S/N of your product and write your question in English.

Specifications

Performance	Frequency Response: 20 - 20KHz, +/- 0.1dB* THD: < 0.00012% (XLR); < 0.00015% (RCA) DNR: > 130dB
Sampling Rates	PCM: 44.1KHz to 384KHz in 32Bit** DSD: DSD64 to DSD512***
Inputs	AURALiC Lightning Link Digital Inputs: AES/EBU, Coaxial, Toslink, eARC USB Input: USB device to computer or streamer Network Input: Gigabit Ethernet Analog Input: 2Vrms maximum with home theater bypass mode
Outputs	Balanced: one pair of XLR, maximum output at 6Vrms Single-Ended: one pair of RCA, maximum output at 6Vrms Headphone: two 6.35mm stereo headphone jack
Streaming Inputs	<ul style="list-style-type: none"> • UPnP/DLNA media server • TIDAL, Qobuz, Amazon Music Unlimited, HRA, KKBOX • vTuner and TuneIn Radio • Spotify Connect, TIDAL Connect • AirPlay, Bluetooth • Roon Ready
Streaming File Formats	Lossless: AIFF, ALAC, APE, DIFF, DSF, FLAC, OGG, WAV and WV Lossy: AAC, MP3 and WMA
Processing Platform	AURALiC Tesla G3 64bit quad-core processor, 4GB system memory, 16GB data storage
Femto Clock	Dual 60fs Femto Clock
Power Consumption	Standby: <0.5W Sleep: <10W Playback: 50W at max.
Dimensions - W x D x H	13.4 x 12.6 x 3.7 in. (34cm x 32cm x 9.6cm)
Weight	20.5 lbs. (9.3kg)
Product Finishing	Anodized aluminum case in matte black with copper EMI shielding enclosure.

*Tested under Filter Mode Precise for all sampling rates

**352.8KS/s, 384KS/s and all 32bit formats are supported through streaming, Lightning Link and USB input only

*** DSD is only supported through streaming, Lightning Link and USB input. By 'DoP V1.1' or native DSD protocol

All specifications are subject to change without notice.

AURALiC Product Registration Form

Owner Information	
Your Name	
Address	
City	
Zip Code	
Country	
Email	
Telephone	
Product Information	
Product Name	
Serial Number	
Dealer Name	
Purchase Date	
Purchase Price	

