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CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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 7.
- 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 “Service” on page 34.

Declaration of Conformity

AURALiC (Beijing) Technology Co., Ltd.
Room 101, Building No.17, 1A Chaoqian Road
Beijing, 102200, China

declares under our sole responsibility as the manufacturer of the product:

ALTAIR G1
Digital Audio Streamer

is compliant with Directive 2011/65/EC (RoHS) Restriction on Hazardous Substances, and is in conformity with the provisions of the following EC Directive, including all amendments, and with national legislation implementing these directives:

2014/35/EU Low Voltage Directive (LVD)
2014/30/EU Electromagnetic Compatibility Directive (EMC)
2014/53/EU Radio and Telecommunication Terminal Equipment (R&TTE) Directive
2012/19/EU Waste of Electrical and Electronic Equipment Directive

The following harmonized standards were applied:

Health and safety of the user:	EN 60065:2002+A1:2006+A11:2008+A2:2010 +A12:2011
Electromagnetic compatibility:	EN301489-1 V1.9.2(2011-09) EN301489-17 V2.2.1(2012-09) EN55013:2013 EN55020:2007+A11:2011 EN61000-3-2:2014 Class A EN61000-3-3:2013 EN61000-4-2:2009 EN61000-4-3:2006+A1:2008+A2:2010 EN61000-4-4:2012 EN61000-4-5:2014 EN61000-4-6:2014 EN61000-4-11:2004
Effective use of the spectrum allocated:	EN300328-V1.9.1(2015-02) EN301893-V1.8.1(2015-03) EN300440-1 V.1.6.1(2010-04) EN300440-2 V1.4.1(2010-08)

This product that carries the CE Mark, which was first affixed in 2019.

Warranty

AURALiC offers a 90-day factory warranty from the date of purchase that can be extended to a 3-Year limited warranty. This non-transferable warranty is available to the original owner by completing the product registration form including the original sales information from your authorized AURALiC dealer within 30 days from purchase. You can either activate the device using Lightning DS software with your AURALiC account or fill out the 'AURALiC Product Registration Form' on page 37 and send it back to the address provided to finish the registration.

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 done 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.

Unpacking

Please check that the following items are in the box:

- ALTAIR G1
- AC Power Cord
- USB Cable
- User's Guide
- Wi-Fi Antennas (2 pieces)

Carefully unpack each piece; if there is any damage, or if anything is missing, please contact your dealer or AURALiC.

ONLY SHIP THIS PRODUCT IN ITS ORIGINAL PACKAGING!

Please be sure to retain the original shipping carton and all packing materials as they are specially designed to protect the unit during transportation and shipping.

Placement and Cabling

Placement

ALTAIR G1 should be placed on a solid and stable surface with good ventilation. Do not install this product near any heat sources such as radiators or other products (such as amplifiers) that produce heat. Place the product so that its location or position does not interfere with its proper ventilation. For example, it should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

Ventilation Requirement

ALTAIR G1 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.

Check Your AC Mains Voltage

ALTAIR G1 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. Mains voltage setting is not intended to be changed by the user. If it needs to be changed, contact your dealer or AURALiC.

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.

ALTAIR G1 MUST BE USED WITH CORRECT MAINS VOLTAGE AND PROPERLY EARTHED!

Cabling

The I/O ports on the rear of ALTAIR G1:

- **AES, COAX and TOS**

  The maximum sampling rate supported by AES/EBU, Coaxial and Toslink inputs is 24Bit/192KHz. All input data will be buffered by the Lightning Tesla platform to removing jitter and forwarding the signal to the DAC circuit with its own Femto clock to regulate timing.

- **USB HS**

  The maximum sampling rates supported by USB HS are 32Bit/384KHz and DSD512. USB 2.0 HS uses asynchronous transmission. All PCM data will be buffered by the Lightning Tesla platform, removing jitter and forwarding the signal to the DAC circuit with its own Femto clock to regulate timing. DSD data will be buffered by separate circuit, removing jitter and forwarding the signal to the DAC circuit with its own Femto clock to regulate timing.

- **HDD**

  USB host port for connecting USB removable storage. When USB storage is present, Lightning Server will read the content on the USB storage and scan the music files automatically. The partition formats supported are FAT32, exFAT, NTFS, EXT-2/3/4 and limited support of Apple HFS+. The maximum

current driving ability of this port is 5V/500mA. AURALiC recommend you use USB storage with a dedicated power supply for sound quality considerations. Lightning Server will only scan the largest partition on your USB storage for music data.

- **STREAM**

  Gigabit Ethernet connection for ALTAIR G1. Go to:
  Home Menu>Settings>Network>Connection Type>Wired>Join Network to switch to Ethernet.

- **ATN1 and ATN2**

  Wi-Fi antennas for ALTAIR G1. The Wi-Fi antennas also work as Bluetooth receiver antennas. Go to **Home Menu>Settings>Network>Connection Type>Wireless** and select the Wi-Fi network you want to join.

- **RIGHT/LEFT OUT**

  The balanced, single-ended analog outputs of ALTAIR G1 are individually buffered and can be used simultaneously. However, it is recommended to disconnect unused ports to avoid potential electromagnetic interference induced by cables. The amplitude of analog outputs is adjustable with a maximum level of about 4.4Vrms for both XLR and RCA outputs. The output impedance of XLR output is very low at 4.7ohm, so it can be used to drive a wide variety of power amplifiers. Please pay special attention NOT to short any pin of any analog output to ground.

- **AC Mains**

  For the best sound quality, we suggest using a standalone power supply for ALTAIR G1 to isolate it from other digital source components that use switching power supplies. The power consumption of ALTAIR G1 is less than 50W. A heavy gauge power cord is not recommended as the weight of the power cord connector may damage the power cord socket on the back of the unit. Please double-check the AC mains voltage on the back of the unit before connecting to the power.

Please make sure to power off all units in your system before any cabling job; failure to follow this instruction may result in permanent damage to the device and void any warranty.

ALWAYS POWER OFF ALTAIR G1 BEFORE CABLING!

Front Panel

The front panel of ALTAIR G1:

- **Rotary Knob**

  The rotary knob can be rotated clockwise or anti-clockwise through 20 steps for a full cycle, and can be pressed for operation confirmation.

- **Headphone Output**

  There is a 6.35mm headphone jack on the front panel for monitor use. The jack is not individually buffered and are connected inside ALTAIR G1.

- **Front Panel Display**

  The 4-inch high-resolution true color display on the front panel gives you full access to ALTAIR G1 settings as well as displaying enriched metadata.

- **Smart-IR sensor**

  The IR remote control sensor is hidden behind the front panel display. ALTAIR G1 is equipped with AURALiC's Smart-IR control technology. You can assign the device's functions to any buttons you choose on your IR remote control. Please refer to 'Smart-IR Remote Control' on page 33 for detailed instructions.

Using your ALTAIR G1

Power Up and Sleep

ALTAIR G1 will power up automatically after the main power on the back of the unit is switched on. To put the device into sleep mode, please press and hold the rotary knob for a couple of seconds till you see confirmation message, select yes and press the knob to confirm your operation. To bring the unit back to work in sleep mode, please press the rotary knob briefly.

You can also use Smart-IR function to assign remote button for function. Please refer to ‘Smart-IR Remote Control’ on page 33 for detailed instruction.

Welcome Screen

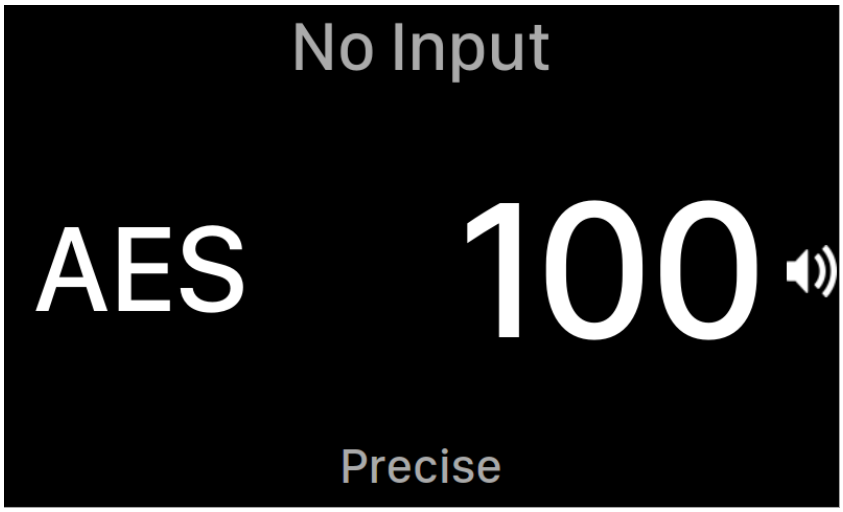
ALTAIR G1 has two different main display styles depends on what input channel you are using.

- **Using ALTAIR G1 with streaming input channel**

When the ALTAIR G1 while using the streaming input channel, you are greeted by the Welcome Screen (above), which displays your device model, device firmware version and the IP address of your device. Refer to page 22 for details on accessing the web interface to set up your device using its IP address.

You may press the rotary knob to leave the Welcome Screen and go to the Home Menu. If you select a track to play using control software, ALTAIR G1 will jump to the 'Now Playing' screen automatically.

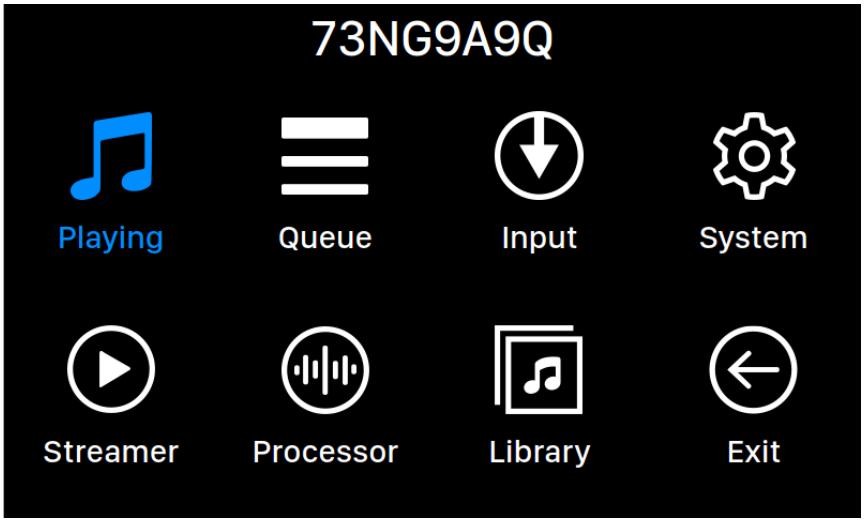
- **Using ALTAIR G1 with all other input channels**



When the ALTAIR G1 starts up with any input channels other than streaming input, the Welcome Screen will show current input channel, sampling rate and volume number. If you have muted ALTAIR G1 by either remote control or Lightning DS App, the volume number will flash to remind you of its status.

You may press the rotary knob to leave the Welcome Screen and go to the Home Menu.

Home Menu



The Home menu is the root level menu of your ALTAIR G1. There are seven destinations available from the Home Menu:

1. **'Playing'**: This interface will be available for access when ALTAIR G1 uses its streaming input channel. The Now Playing interface displays track information and status, playback mode (shuffle, repeat) and volume.
2. '**Queue**': This interface will be available for access when ALTAIR G1 uses its streaming input channel. The Queue interface shows what's currently in the ALTAIR G1 queue. Individual tracks in the queue may be selected for playback.
3. **'Input'**: Select input channel of ALTAIR G1.
4. '**System**': General hardware-related setup, including network information, output channel, display language, etc.
5. '**Streamer**': This interface will be available for access when ALTAIR G1 uses its streaming input channel. You can access to settings for the ALTAIR G1's streaming software.
6. '**Processor**': ALTAIR G1 processor settings. The processor function is only available while ALTAIR G1 uses streaming input channel.
7. '**Library**': Browse/play music from your library, and set up ALTAIR G1's built-in Lightning Server.
8. **'Exit'**: Exit Home Menu and go back to Welcome Screen.

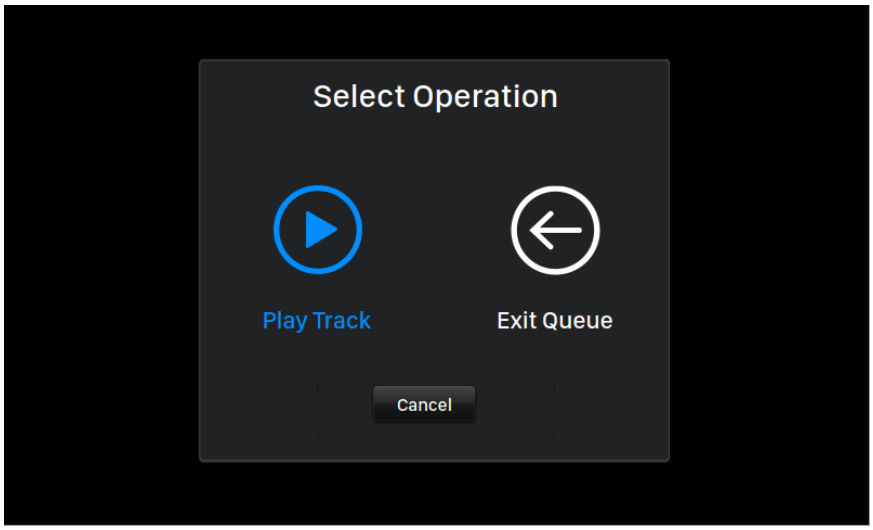
Rotate the rotary knob clockwise or counter-clockwise to highlight a destination, and press the rotary knob to select it. To exit Home menu, please select 'Exit'.

Playing

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

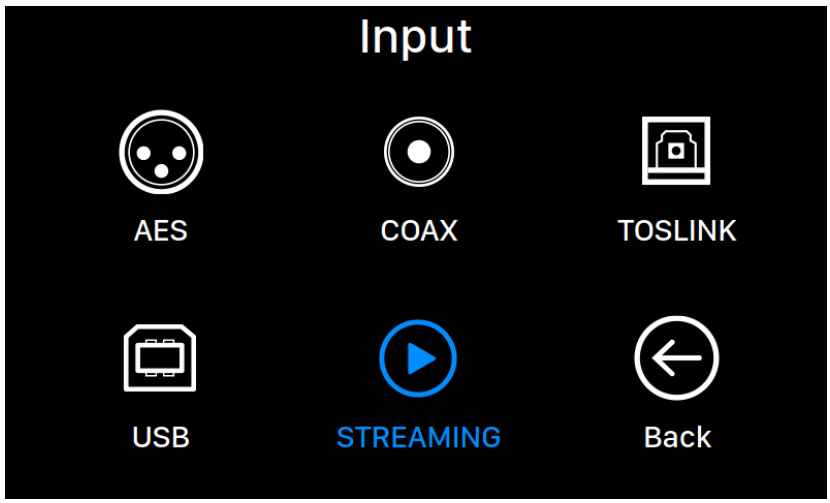
Queue

The ALTAIR G1 playback Queue is stored in device memory. Rotate the rotary knob clockwise or counter-clockwise to select a track and press the rotary knob to activate ‘Select Operation’ popup menu:



Please rotate the rotary knob clockwise or counter-clockwise to select the operation you would like to execute and press the rotary knob to confirm your selection. Please select ‘Exit Queue’ if you would like to exit the Queue interface back to Home Menu.

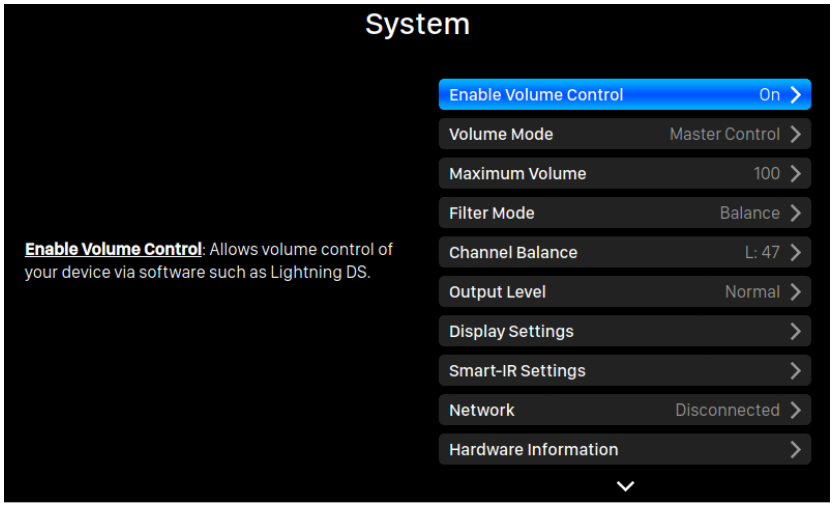
Input



The Input menu allows you to select the physical input channel of the ALTAIR G1. Rotate the rotary knob clockwise or counter-clockwise to highlight a destination, and press the rotary knob to select it.

The Streaming input channel will only be available to select when ALTAIR G1 is connected to your home network.

System



The System menu contains all interface and hardware related settings. Rotate the rotary knob clockwise or counter-clockwise to highlight a destination, and press the rotary knob to select it.

To exit the System menu, please rotate the rotary knob clockwise to the last and select 'Back to Menu'.

1. **'Enable Volume Control'**: Allows volume control of your device via software such as Lightning DS.
2. **'Volume Mode'**: Set up the DAC's volume control.
3. **'Maximum Volume'**: Define a maximum volume that any control software can set for the streaming device. Use this option if you want to prevent accidental operation that may result in potential damage to your loudspeakers with excessive volume. You can select a maximum number between 10 and 100. **Note**: You may not be able to play DSD music if you have enabled this option while using software type volume control.
4. **'Filter Mode'**: Your streaming device has four built-in filter modes, each employing five digital filters optimized for corresponding sampling rates. Developed using a combination of objective data models and subjective testing, these modes optimize sonic quality for varying music types and formats: **Precise**: A traditional filter design using a single filter algorithm for all sampling rates. Precise mode provides the most exacting sonic representation of source material. **Dynamic**: With the same pass-band and stop-band performance as Precise mode, but providing less group delay, Dynamic mode is the ideal balance between measurable precision

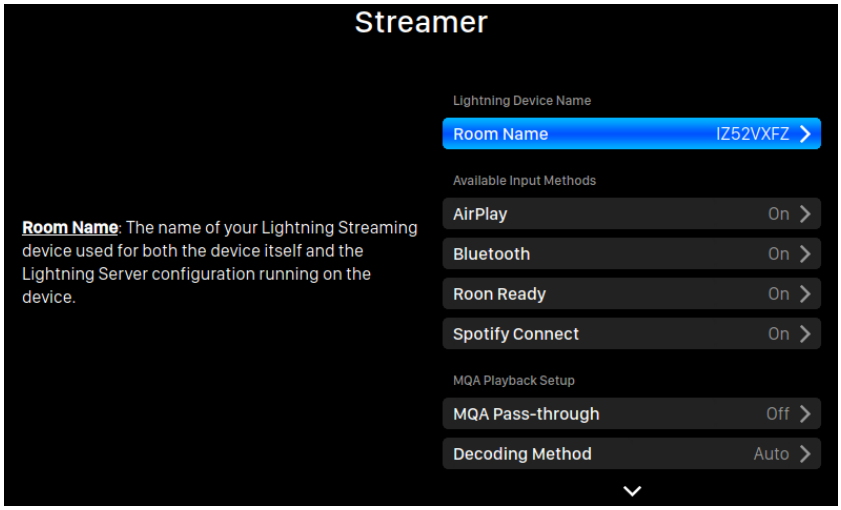
and subjective quality. **Balance**: Balance mode is designed to achieve minimum pre-echo and ringing effects. Slow roll-off filters show moderate pass-band and stop-band performance; however group delay is minimized. **Smooth**: Smooth mode scored highest on subjective listening tests during development. All filters in this mode are minimum phase type, which means there is no pre-echo at all. Smooth mode filters are designed with very small group delay to eliminate ringing as well.

5. **'Channel Balance'**: Adjusts the left/right balance of analog output. This setting does not affect digital or USB output.
6. **'Volume Mode'**: Set up the DAC's volume control.
7. **'Output Level'**: Select reference level of analog output. The number represents the actual output voltage when the DAC receives a full-scale digital signal. Consider reducing the output level if you use a separate analog pre-amplifier or an integrated power amplifier with high input sensitivity; our default setting may overload the amplifier's input circuit.
8. '**Display Settings**': Set preferences for the front panel display.
    a. **Idle Status**: Select whether you'd like the display to always remain on, or to turn off automatically.
    b. **Display Brightness**: Select the brightness of your device's front display.
9. '**Smart-IR Settings**': Use this feature to assign your device's functions to any buttons you choose on your IR remote control.
10. '**Network**': Set up your device's network connection.
    a. **Connection Type**: Choose Ethernet or Wi-Fi to connect your device.
        i. **Wired**: Set up an Ethernet connection for your device.
        ii. **Wireless**: Set up a Wi-Fi connection for your device.
    b. **Network Information**: Show network connection information such as IP address, Wi-Fi network, etc.
    c. **Start Wi-Fi Hotspot**: Your device will create a Wi-Fi hotspot named 'AURALiC-Lightning'. You can use your computer, iPhone or iPad to connect to this Wi-Fi network and set up the device's network settings. You cannot play music while in Wi-Fi Hotspot mode.

11. '**Hardware Information**': Display device hardware information such as S/N and firmware version.
12. '**Language**': Select a different interface language for your device.
13. **'Firmware Update'**: Check and update device firmware. Please make sure your device is connected to Internet.
14. '**Erase All User Settings**': Erase all settings on your device. Your device will reboot automatically when the operation is complete. This operation will not erase music data on your internal storage.

15. ‘**Back to Menu**’: Back to Main Menu Screen.

Streamer



The Streamer menu contains all streaming and rendering related setup options. Use the rotary knob to highlight a menu item, and press the knob to select.

1. ‘**Room Name**’: The name of your Lightning Streaming device used for both the device itself and the Lightning Server configuration running on the device.
2. ‘**Available Input Methods**’: Enable or disable particular virtual input channel. Disabling unused input methods may improve overall sound quality.
3. **‘MQA Pass-through’**: When enabled this setting will pass the original music signal through your streaming device without making any changes, allowing an external DAC to use its own decoding functions. Use this option when connected to an MQA-enabled DAC for example. (You may also need to disable the volume control function of your streaming device or set the volume to 100 to ensure full-level pass-through of the signal.)
4. ‘**Decoding Method**’: AURALiC streaming devices are capable of decoding MQA files using AURALiC’s proprietary resampling and de-blurring method. You can select from the sampling rate settings for the process described here. Please note that this process is not an MQA-created or MQA-licensed process.
    a. ‘**Auto**’: Your streaming device will detect the best decoding sampling rate based on the information in the MQA file. It will also detect the maximum sampling rate of a USB-connected DAC.
    b. ‘**2x Sampling Rate**’: Your streaming device will always decode

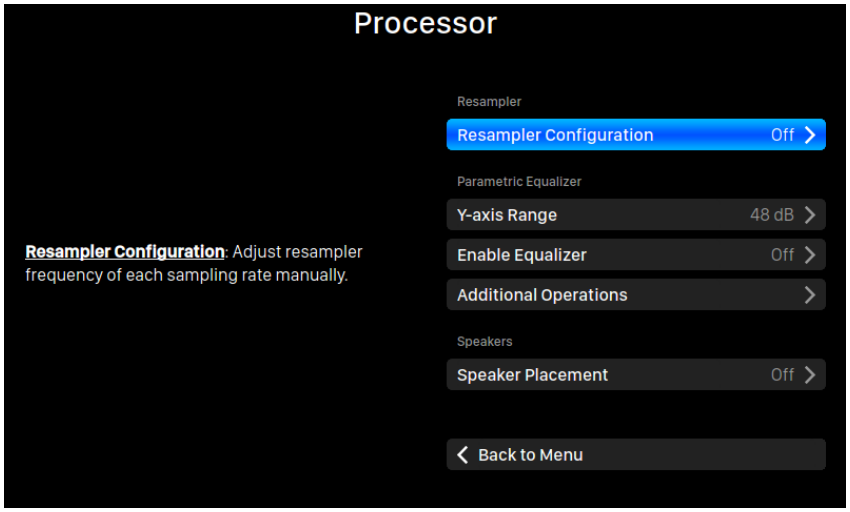
MQA files at 88.2 kHz or 96 kHz depending on the original file's sampling rate. "

c. '**4x Sampling Rate**': Your streaming device will always decode MQA files at 176.4 kHz or 192 kHz depending on the original file's sampling rate.

d. '**8x Sampling Rate**': Your streaming device will always decode MQA files at 352.8 kHz or 384 kHz depending on the original file's sampling rate. "

5. **'TIDAL'**: Getting the best streaming quality from TIDAL. The maximum streaming quality of music from TIDAL depends on the file formats stored on TIDAL's servers, and the subscription type of your TIDAL account. These settings can maximize the streaming quality of your TIDAL content. FLAC MQA: FLAC in the MQA format, which is compressed and lossy. You may benefit from this setting if your DAC supports MQA decoding. (MQA file has a degraded dynamic range compared to non-MQA file if you play it on a non-MQA DAC.) FLAC Lossless: FLAC in lossless CD quality at a sampling rate of 44.1K or 48K. This is the best option if you stream to a DAC without an MQA decoder. MP3 High: Lossy MP3 (or MP4) format, at a higher bitrate. MP3 Low: Lossy MP3 (or MP4) format, at a lower bitrate.
6. **'Qobuz'**: Getting the best streaming quality from Qobuz. The maximum streaming quality of music from Qobuz depends on the file formats stored on the Qobuz servers, and the subscription type of your Qobuz account. These settings can maximize the streaming quality of your Qobuz content: FLAC Up to 384K: FLAC in Hi-Res lossless format up to a maximum sampling rate of 384K. FLAC Up to 96K: FLAC in Hi-Res lossless format up to a maximum sampling rate of 96K. FLAC Lossless: FLAC in lossless CD quality at a sampling rate of 44.1K or 48K. MP3 Lossy: Lossy MP3 (or MP4) format.
7. **'Back to Menu'**: Back to Home Menu.

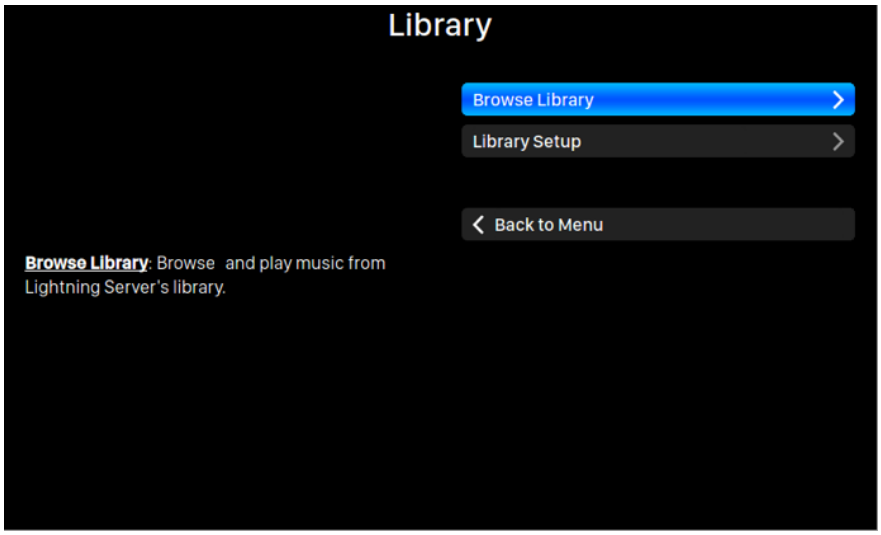
Processor



Use the rotary knob to highlight a menu item, and press the knob to select.

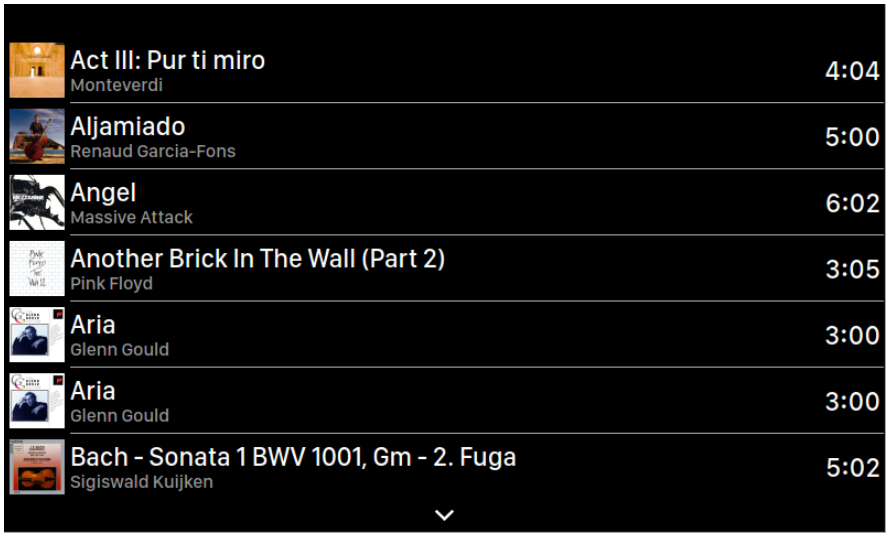
1. '**Resampler Configuration**': Adjust resampler frequency of each sampling rate manually.
2. '**Parametric Equalizer**': The parametric equalizer allows you to fine-tune the sound of your streamer and to compensate for acoustic imperfections in the listening environment. Effects available with Lightning Streaming devices include Peak/Dip, High Pass, Low Pass, Band Pass and Band Stop. The number of bands that can be added to the equalizer is determined by the device type. Products with the Tesla G1 platform support up to 8 bands simultaneously.
3. **'Speaker Placement'**: Enable/disable speaker placement compensation.
4. **'Back to Menu'**: Back to Main Menu Screen.

Library

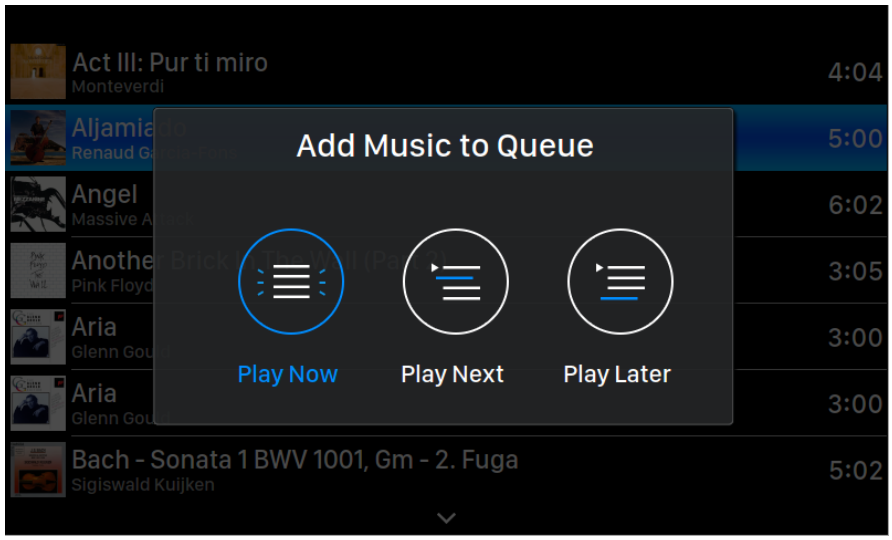


The Library interface allows users to set up the ALTAIR G1's Lightning Server, and to browse the music library created by the Lightning software. Rotate the rotary knob clockwise or counter-clockwise to move highlight menu items and press the rotary knob to select.

1. '**Browse Library**': Browse and play music from the Lightning Server library. Folder view of the music library:



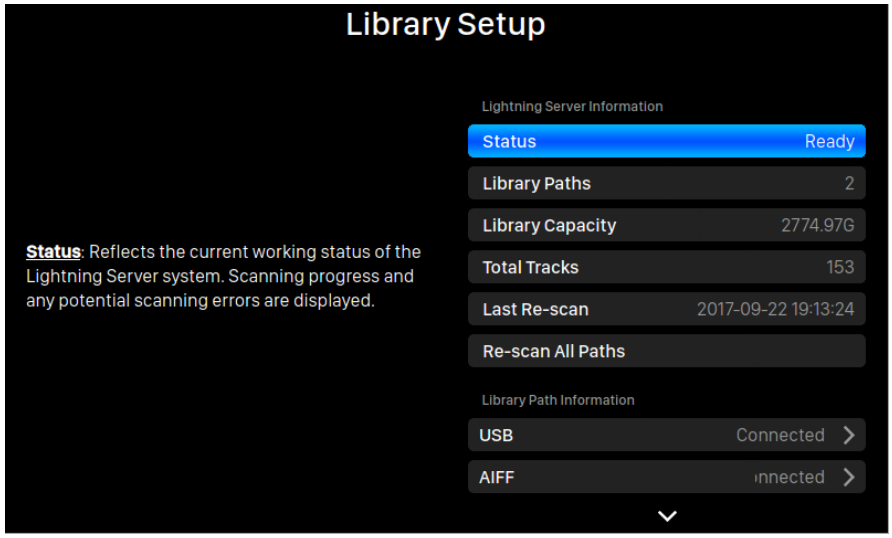
Use the 'Up' and 'Down' buttons to highlight an album or a track. Use the 'Play/Pause' button to select the album or to play the track. Use the 'M' button to return to the previous view. When a track is selected, a popup window will appear:



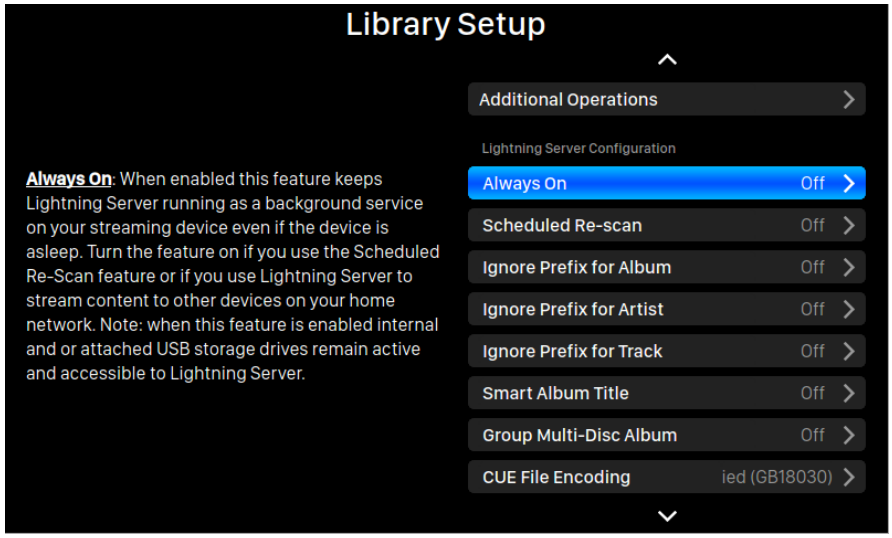
Select **'Play Now'** to stop the currently playing track, remove all previously added tracks in the queue, and add all tracks from the current folder. Playback begins immediately. Select **'Play Next'** to add all tracks from the current folder, and play them when the current track ends. Select **'Play Later'** to add all tracks from the current folder to the end of the existing queue.

Use the 'Up' and 'Down' button to select how you want the tracks to be added then press the 'Play/Pause' button to confirm. Use the 'M' button to quit this interface without future action.

2. '**Library Setup**': Set up Lightning Server to create a music library service for your home network.



- **Status**: Reflects the current working status of the Lightning Server system. Scanning progress and any potential scanning errors are displayed.
- **Library Paths**: The total number of user-defined music storage locations recognized by Lightning Server. Includes attached USB drives, network shared folders and internal storage.
- **Library Capacity**: Combined disk space of all user-defined music storage locations.
- **Total Tracks**: Total number of musical tracks in the music storage location. Non-music files and files not recognized or supported by Lightning Server are not included.
- **Last Re-scan**: Date & time of the last library scan performed by Lightning Server.
- **Rescan All Paths**: Re-scans all user-defined library file locations for changes.



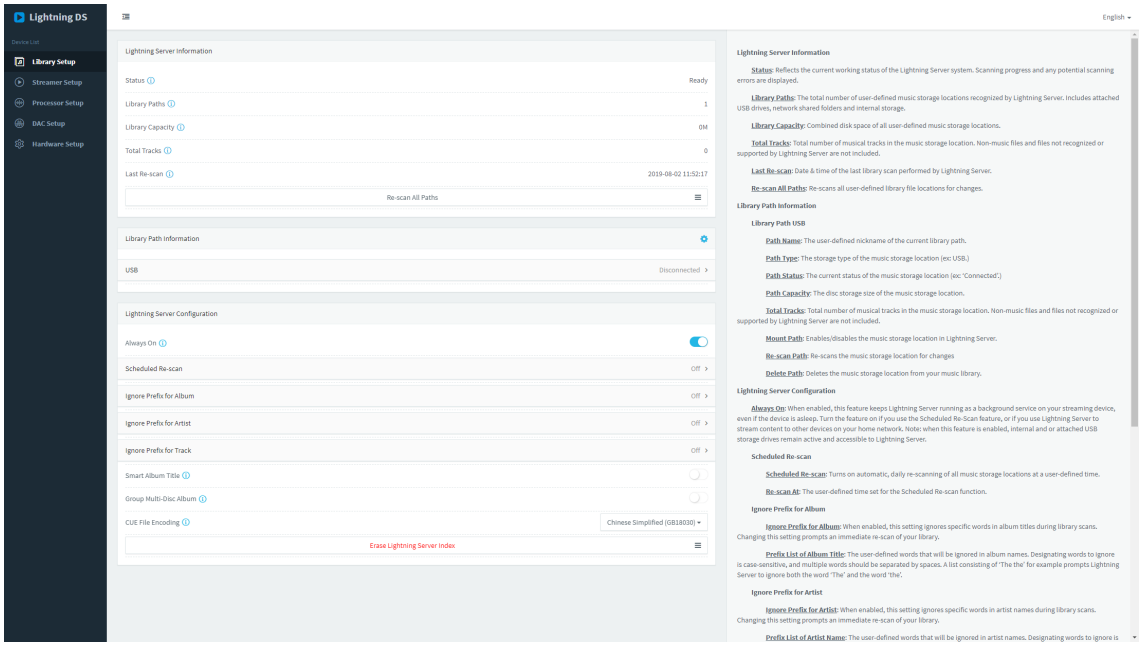
- **Additional Operations**: Lightning Server operations not listed elsewhere, including the creation of multiple library paths.
- **Always On**: When enabled this feature keeps Lightning Server running as a background service on your streaming device even if the device is asleep. Turn the feature on if you use the Scheduled Re-Scan feature or if you use Lightning Server to stream content to other devices on your home network. Note: when this feature is enabled internal and or attached USB storage drives remain active and accessible to Lightning Server.
- **Scheduled Re-scan**: Turns on automatic daily re-scanning of all music storage locations at a user-defined time.
- **Ignore Prefix for Album**: When enabled this setting ignores specific words in album titles during library scans. Changing this setting prompts an immediate re-scan of your library.
- **Ignore Prefix for Artist**: When enabled this setting ignores specific words in artist names during library scans. Changing this setting prompts an immediate re-scan of your library.
- **Ignore Prefix for Track**: When enabled this setting ignores specific words in track names during library scans. Changing this setting prompts an immediate re-scan of your library.
- **Smart Album Title**: Toggles case sensitivity for the album tag field associated with tracks. If several tracks from the same album are tagged inconsistently in terms of album capitalization the tracks may be shown as being from different albums. (Tracks tagged with “Abbey Road” will display as being from a different album as tracks tagged with “abbey road.”) When Smart Album Title is enabled capitalization is ignored and such tracks are grouped together and displayed as a single album using the most frequently-occurring version of the album

name. Note: this feature requires a complex algorithm that may significantly reduce the library scanning and indexing speed of Lightning Server.

- **Group Multi-Disc Album**: Groups/ungroups tracks from multi-disc albums into a single album. When enabled Lightning Server searches for tracks that are tagged with the same album name but which reside in folders with names such as “CD01” “CD02” etc. (i.e. identical alpha characters followed by consecutive numbering) and displays them in the music library as a single album. When disabled tracks from each folder will display as separate albums with the same name. Note: this feature requires a complex algorithm that may significantly reduce the library scanning and indexing speed of Lightning Server.
- **CUE File Encoding**: Specifies non-standard or non-English CUE file encoding. If your library contains CUE files that do not use standard UTF8 encoding Lightning Server needs some help to successfully read metadata such as album and track information. (Standard UTF8-encoded CUE files are detected automatically.) Use this feature to specify the encoding method of non-UTF8 CUE files present in your library.
- **Erase Lightning Server Index**: This function erases all existing library indexes and rebuilds them. Erasing/rebuilding your library indexes may resolve library errors. Music files themselves are not changed or affected in any way.

Lightning Web Control Interface

The Lightning web control interface is an easy way to access hardware settings for AURALiC devices including the ALTAIR G1 using any laptop, smartphone, or desktop computer. Put the device’s IP address into the address bar of a compatible web browser (Google Chrome & Safari are recommended) to access the Lightning Web Interface. Your ALTAIR G1 IP address is visible on the Welcome Screen (see “Using your ALTAIR G1.”)



Screen shot of the Lightning web control interface

Descriptions for each setting accessible via the Lightning web control interface are visible within the interface itself.

Lightning DS for iOS

Lightning DS is a free music control app developed by AURALiC for iOS. It is compatible with iPad, iPhone, and even the latest generation of iPod touch, and is available for download from the App Store. A user's guide for Lightning DS may be found on our support website: support.auralic.com

Use with Other Software

The ALTAIR G1 is compatible with other OpenHome-based control software (although not with UPnP-based software such as JRiver Media Center.) Some functionality may be limited when using 3rd party control software. The following software may be used:

- BubbleUPnP
- BubbleDS
- Linn Kazoo
- Lumin

The ALTAIR G1 is also a RoonReady endpoint, and may be set up as a zone or as an output. (Note: ALTAIR G1 cannot act as a Roon Core or Roon server — a separate Roon server is required on your home network to use Roon.)

Use ALTAIR G1 as USB DAC

ALTAIR G1 does not require a driver to work with Mac OS X and Linux operating systems with its USB input. It also works with various Linux based network streamers. However, you will need to install a USB drive for compatibility with a Windows computer.

To download AURALiC's USB Audio Driver, please go to **support.auralic.com**, Select **'Software Release Notice' > 'Current USB Audio Driver'** and download the latest driver.

The AURALiC USB Audio Driver supports Windows 7/8/10 but no longer supports Windows XP for performance and security reasons.

Use ALTAIR G1 as a Streamer

To use ALTAIR G1 as a streamer, you simply need to connect ALTAIR G1 to your home network either with an Ethernet cable or through WiFi network setup. Once ALTAIR G1 has obtained an IP address from your network router, you will be able to select Stream from the in Input menu.

Please make sure that ICMP and IGMP are enabled on your router (enabling the 'ping' command), so that the ALTAIR G1 can successfully test network connectivity.

Network Setup

There are three methods for connecting your ALTAIR G1 to your home network: using the front panel display, using the Lightning web control interface, or using the Lightning DS app.

Before setup, please make sure that ICMP and IGMP are enabled on your router (enabling the 'ping' command), so that the ALTAIR G1 can successfully

test network connectivity.

Until it is configured for your network, the ALTAIR G1 displays the following when it is powered on:

'Wi-Fi Hotspot' indicates that the ALTAIR G1 is broadcasting a Wi-Fi signal used for setting up the device on your home network. Make sure you have plugged a network Ethernet cable into the back of the ALTAIR G1.

Connecting to your network via Ethernet

- **Use the ALTAIR G1 Home Menu**

Rotate the rotary knob clockwise or counter-clockwise on the front panel to activate the Home Menu and press the rotary knob to select **'System'**.

Select **'Network' > 'Connection Type' > 'Wired' > 'Join Network'**.

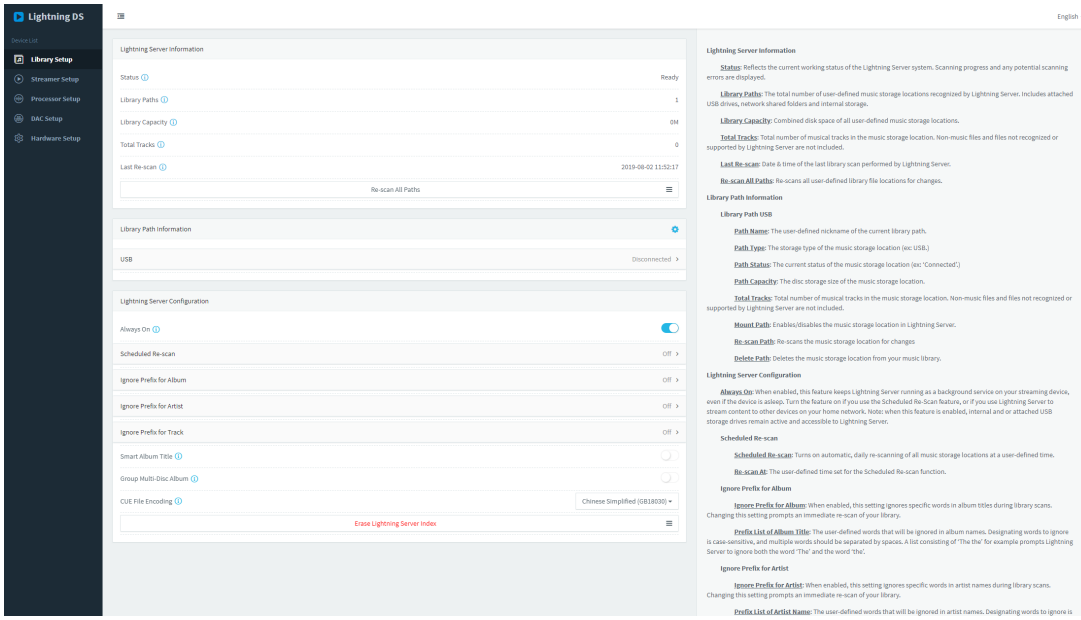
Your ALTAIR G1 will display a loading symbol while it attempts to establish a network connection. When the connection is successful the Home Menu is displayed, now with the ALTAIR G1's IP address shown instead of the 'Wi-Fi Hotspot' information as before.

- **Using the Lightning web control interface:**

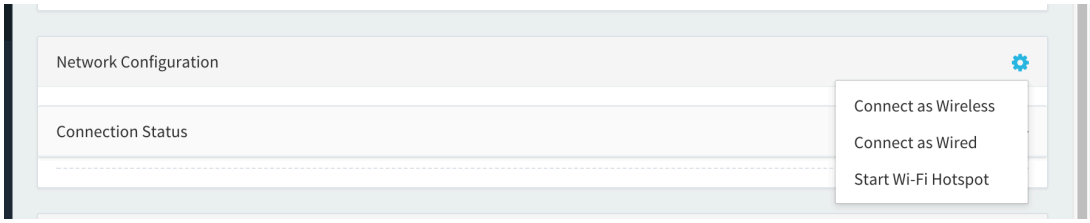
On your computer or mobile device, a Wi-Fi network called **'AURALiC-Lightning'** should be available in your network settings. Join this network to establish a temporary connection with your ALTAIR G1. (This is an open

network without a password, but it is only a temporary network, and it will be disabled once your ALTAIR G1 has connected to your home network.)

Once connected to ‘AURALiC-Lightning’, open a web browser and enter **’10.5.5.1**’ into the address bar. The Lightning web control interface is now available:

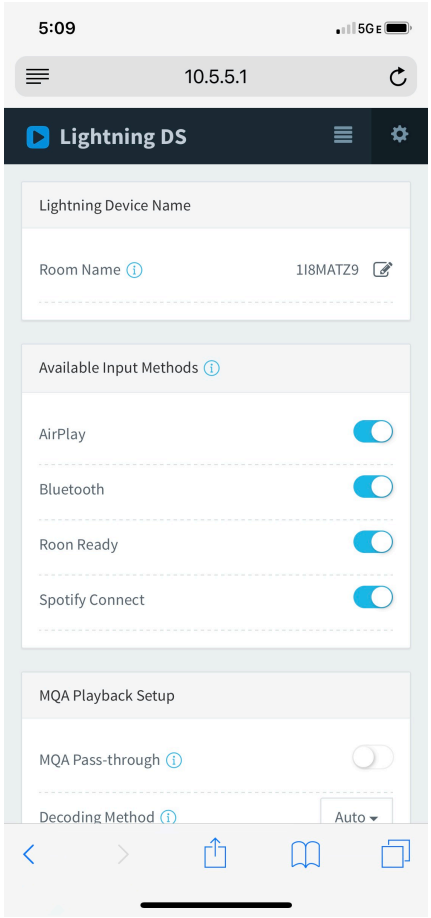


Select ‘**Hardware Setup**’ from the left menu, and click the blue gear icon next to ‘Network Configuration’:

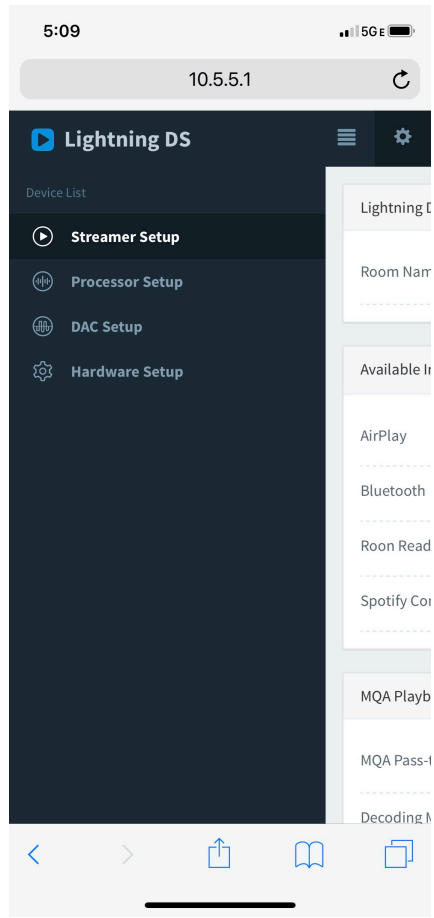


Select **‘Connect as Wired’**, then **‘Join’** in the popup window.

If you are using a browser on a small-screen device such as a smartphone, this interface is slightly different. Select the menu icon (upper right next to the gear icon), then select **‘Hardware Setup’**:



Left: web interface on smart phone activated



Right: Side menu

Your ALTAIR G1 will display a loading symbol while it attempts to establish a network connection. When the connection is successful the Home Menu is displayed, now with the ALTAIR G1's IP address shown instead of the 'Wi-Fi Hotspot' information as before.

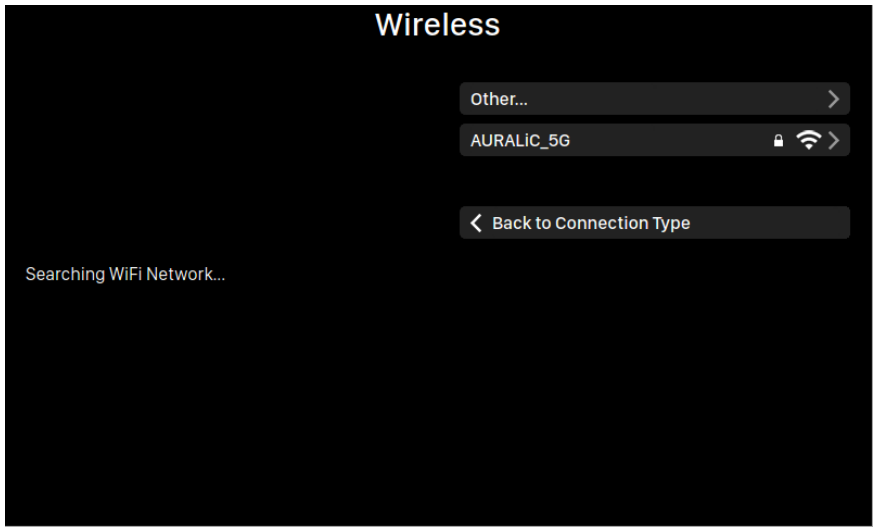
Connecting to your network via Wi-Fi

- **Using the ALTAIR G1 Home Menu**

Rotate the rotary knob clockwise or counter-clockwise on the front panel to activate the Home Menu and press the rotary knob to select '**System**'.

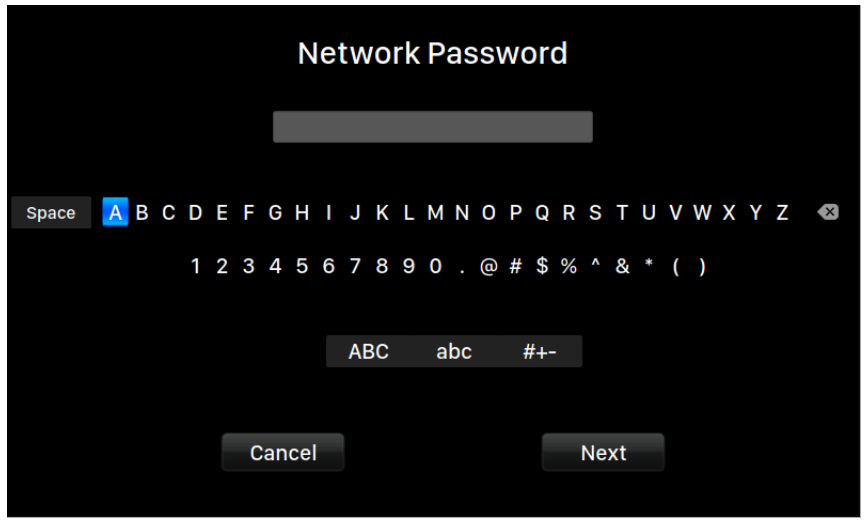
Select '**Network' > 'Connection Type' > 'Wireless**'.

Your ALTAIR G1 will display a loading symbol while it searches for local Wi-Fi networks.



The network list refreshes every 10 seconds, so wait a few moments if your Wi-Fi network isn't immediately visible.

Select the Wi-Fi network you would like to use from the list, then 'Network Password', and enter the network password:



Use the rotary knob to select characters, and press the rotary knob to confirm your input. (Toggle capital/lowercase/special characters on/off using 'ABC', 'abc', and '#+-'.) Select 'Next' when the password is entered, then '**Join Network**'.

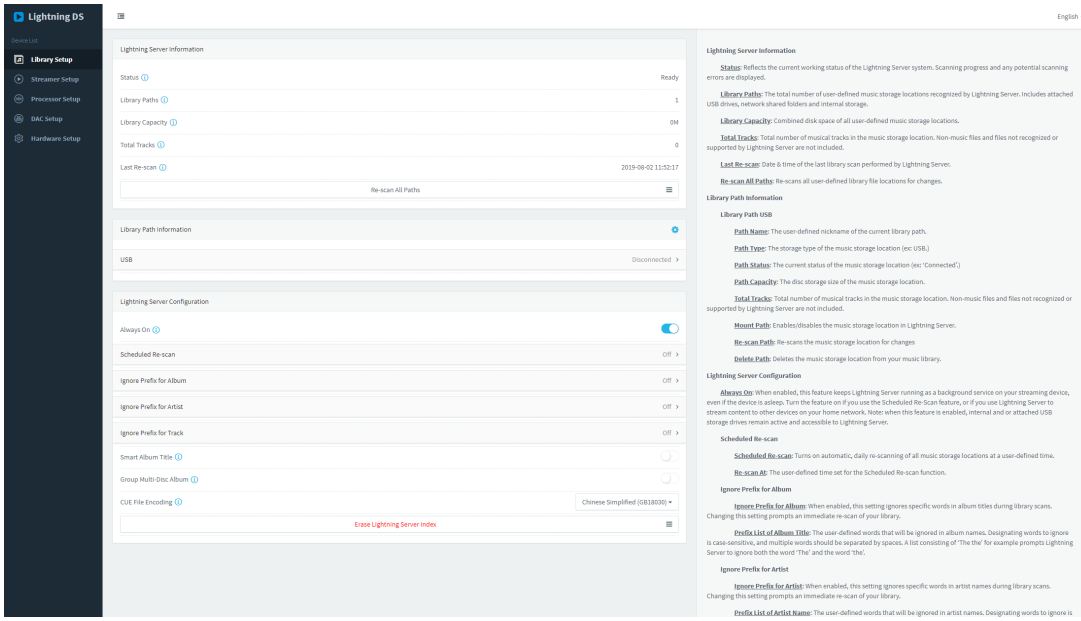
Your ALTAIR G1 will display a loading symbol while it attempts to establish a Wi-Fi connection. When the connection is successful the Home Menu is displayed, now with the ALTAIR G1's IP address shown instead of the 'Wi-Fi Hotspot' information as before.

If your Wi-Fi network is not visible (hidden SSID), you'll need to select '**Other…**' when the Wi-Fi list is shown, and manually enter the Wi-Fi network name, encryption method, and network password (if needed.)

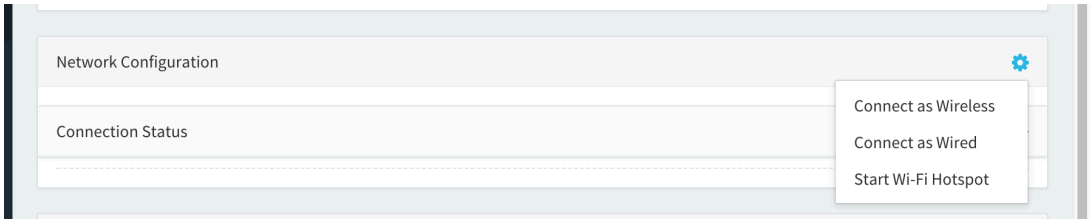
- **Use the lightning web control interface**

On your computer or mobile device, a Wi-Fi network called '**AURALiC-Lightning'** should be available in your network settings. Join this network to establish a temporary connection with your ALTAIR G1. (This is an open network without a password, but it is only a temporary network, and it will be disabled once your ALTAIR G1 has connected to your home network.)

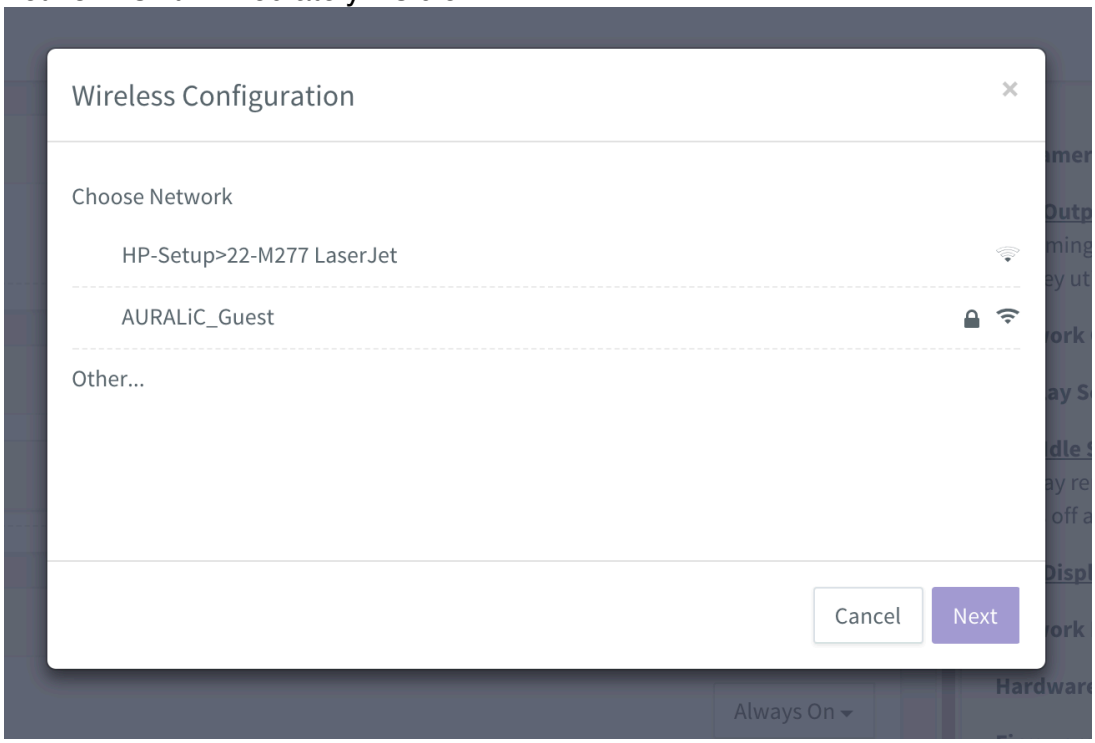
Once connected to '**AURALiC-Lightning'**, open a web browser and enter '**10.5.5.1'** into the address bar. The Lightning web control interface is now available:



Select '**Hardware Setup'** from the left menu, and click the blue gear icon next to '**Network Configuration**':



Select '**Connect as Wireless**' to see a list of available Wi-Fi networks. The network list refreshes every 10 seconds, so wait a few moments if your Wi-Fi network isn't immediately visible.

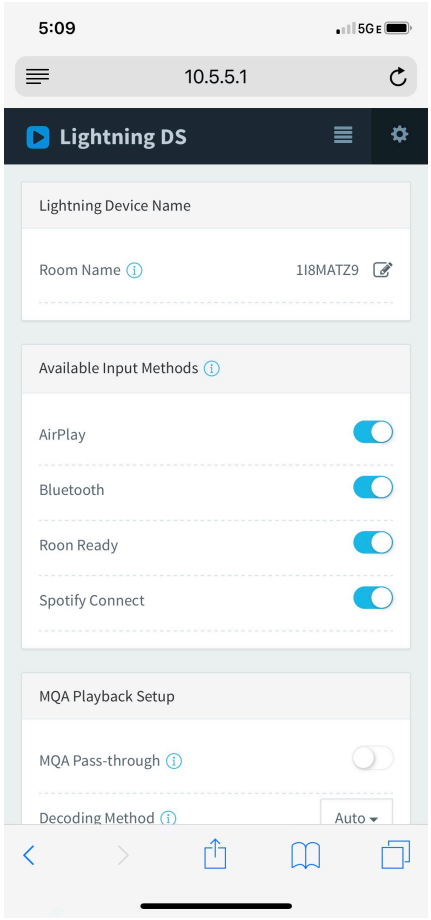


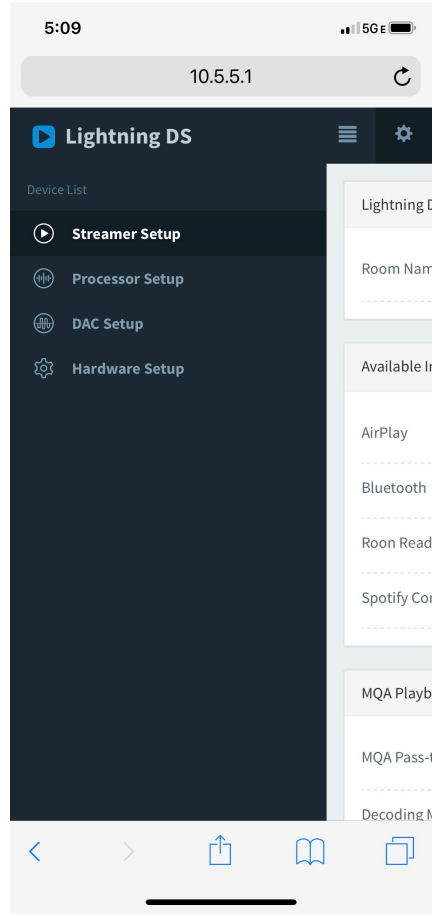
Wi-Fi network list on Lightning web control interface

Select the network you'd like to use with your ALTAIR G1 and select '**Next**' (once the button has turned blue.) Provide the network password in the popup window the appears, and select 'Join' on the following window.

If your Wi-Fi network is not visible (hidden SSID), you'll need to select '**Other…**' when the Wi-Fi list is shown, and manually enter the Wi-Fi network name, encryption method, and network password (if needed.)

If you are using a browser on a small-screen device such as a smartphone, this interface is slightly different. Select the menu icon (upper right next to the gear icon), then select '**Hardware Setup**':





Left: web interface on smart phone activated

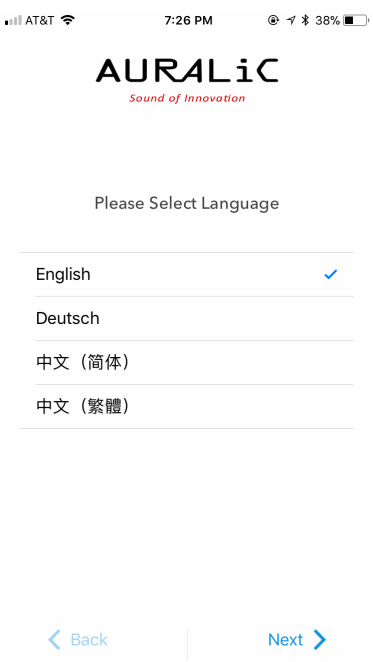
Right: Side menu

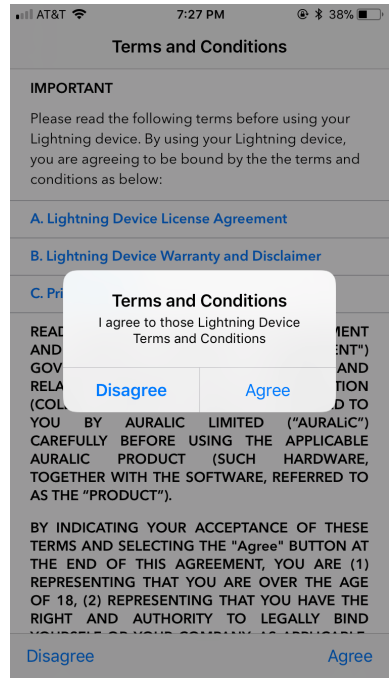
Your ALTAIR G1 will display a loading symbol while it attempts to establish a Wi-Fi connection. When the connection is successful the Home Menu is displayed, now with the ALTAIR G1's IP address shown instead of the 'Wi-Fi Hotspot' information as before.

Getting Started with Lightning DS

When first launching the Lightning DS app on your iOS device, you are prompted to select your language. Lightning DS then displays the End User License Agreement (EULA.) Please read this agreement carefully and select

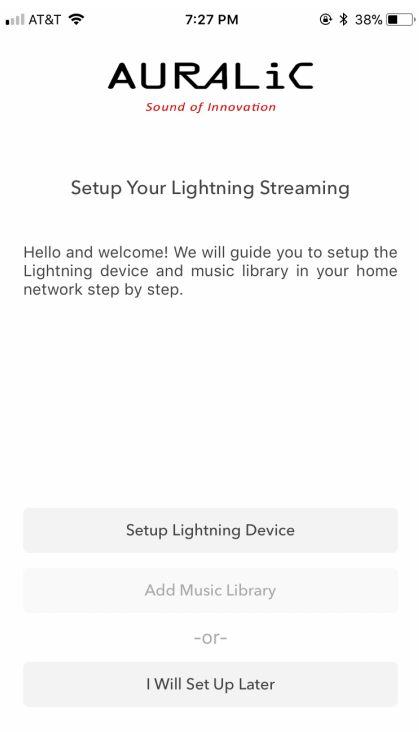
‘Agree’. If you do not agree with the EULA, please return your unit to the seller immediately.

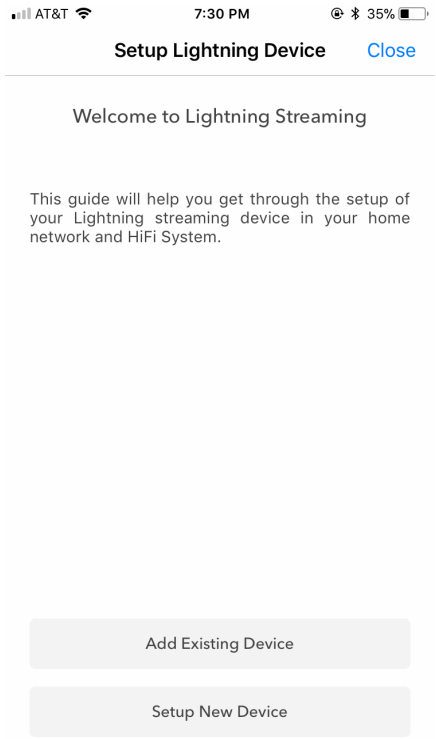




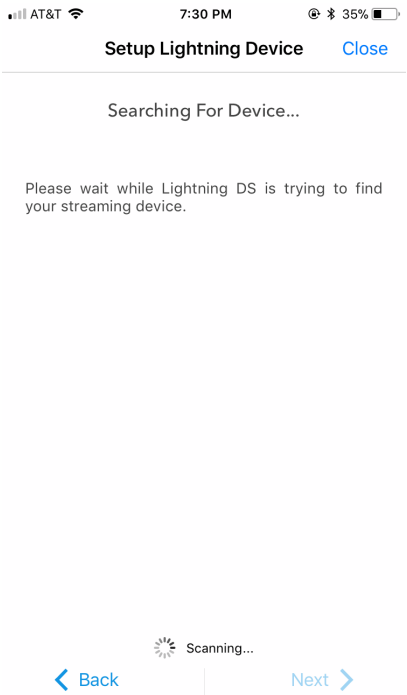
Left: Language selection interface *Right: EULA interface*

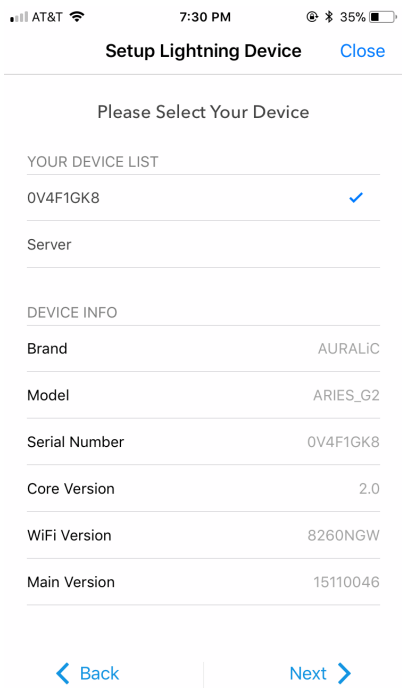
If no device has been set up for use with Lightning DS, the app provides the opportunity to set one up now. Select **‘Setup Lightning Device’ > ‘Add Existing Device’**:





Lightning DS searches for and displays available streaming devices on your network. Select ALTAIR G1, and select 'Next':





Left: Lightning DS searching for device information

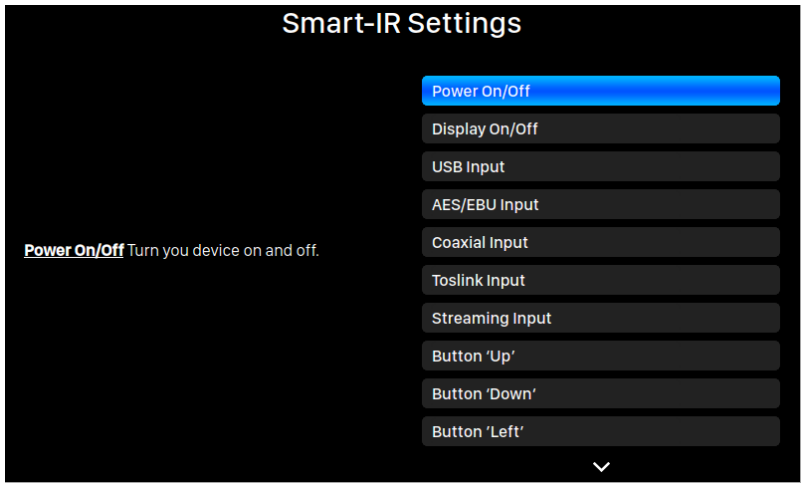
Right: selected device with

Lightning DS is now connected to and able to control your ALTAIR G1. If you would like to add a music library now you can choose ‘Add Music Library’ and follow the setup guide that appears. You can also skip the setup guide by selecting ‘I will Set Up Later’, and Lightning DS will continue to its main interface.

Smart-IR Remote Control

Smart-IR Remote Control lets your AURALiC device map its functionality onto any remote you’d like. Just let the device know which remote you prefer, and all of its operations (play/pause, volume control, track select, etc.) can be assigned to buttons just the way you like them.

To configure Smart-IR Control, select **‘System’>‘Smart-IR Settings’** from the ALTAIR G1 Home Menu.



The Smart-IR settings menu shows a list of controls that can be mapped to any button on your own remote control. Follow the menu guide to complete your remote control setup.

Please note that when learning new remote buttons, the ALTAIR G1 distinguishes between ‘short’ presses and ‘long’ presses (press and hold.) We

suggest pressing the desired button the way you want to use it several times when the ALTAIR G1 is learning about a new button.

Maintenance & Service

ALTAIR G1 does not require regular maintenance for normal use. However, there are a few things that will help to keep it in good operating and cosmetic condition:

Cleaning
Only clean the enclosure with a soft, dry cloth.

Extended Non-use
Disconnect ALTAIR G1 from mains power when it will be left unattended or unused for an extended period.

If your ALTAIR G1 encounters a problem, contact your dealer or AURALiC. Do not void the warranty by allowing unauthorized personnel to attempt to repair. Do not attempt to service the product yourself, any unauthorized repair of the device will void the warranty.

Before ALTAIR G1 can be returned for service, an RMA (Return Material Authorization) number must be issued by AURALiC. Contact your dealer or AURALiC for further information.

Contact

If you have any questions, please feel free to contact our technical support department:

AURALiC North America Inc.
7990 SW Cirrus Dr
Beaverton, OR 97008, United States

Email: **support@auralic.com**
TEL: **+1 (302) 314-5555**

You may also find useful information through our knowledge center and community:

Knowledge Center: **support.auralic.com**
Community: **community.auralic.com**

Specifications

Performance	**Frequency Response:** 20 - 20KHz, +/- 0.1dB* **THD**: < 0.0002% (XLR); < 0.0003% (RCA) **DNR**: > 124dB
Sampling Rates	**PCM:** 44.1KHz to 384KHz in 32Bit** **DSD:** DSD64 to DSD512***
Inputs	**Digital Inputs**: AES/EBU, Coaxial, Toslink **USB Input**: USB device to computer or streamer **Network Input**: Gigabit Ethernet, 802.11 b/g/n/ac Tri-band WiFi
Outputs	**Balanced:** one pair of XLR, maximum output at 2.2Vrms **Single-Ended:** one pair of RCA, maximum output at 2.2Vrms **Headphone**: one 6.35mm stereo headphone jack
Streaming Inputs	Network shared folder, USB Drive, Internal Music Storage***, UPnP/DLNA Media Server, native TIDAL and Qobuz Sublime+ streaming, Internet Radio, AirPlay, Bluetooth, Songcast, RoonReady
Streaming File Formats	**Lossless:** AIFF, ALAC, APE, DIFF, DSF, FLAC, OGG, WAV and WV **Lossy:** AAC, MP3, MQA and WMA
Control Software	**AURALiC Lightning DS for iOS** **AURALiC Lightning DS for web interface** (device settings only) **OpenHome compatible control software** (BubbleUPnP, Kazoo) **Roon** (Roon Core required separately)
Power Consumption	**Playback**: 50W at max.
Dimensions - W x D x H	**13.4 x 12.6 x 3.2 in. (34cm x 32cm x 8cm)**
Weight	**15.0 lbs. (6.8kg)**
Product Finishing	**Precision-machined aluminum case in matte black**

**Tested under Filter Mode Precise for all sampling rates*
***352.8KS/s, 384KS/s and all 32bit formats are supported through USB input only*
**** DSD is only supported using 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	