SuperHUB – User Manual

AUDIOBYTE

Thinking in digital

SuperHUB
Native I²S Streamer

OWNER'S MANUAL

Table of Contents

Introduction

Congratulations on your new high-end audio streamer! The SuperHUB is a state-of-the-art digital hub, seamlessly uniting your various digital sources in one unit. To take full advantage of its capabilities, we recommend reading this manual.

This document contains an overview of the device's internal architecture, specific handling details, functional description, safety precautions and product warranty details. This document is not meant for service or repair operations, as these must be carried out only by qualified personnel.

More information regarding Audiobyte products can be found on-line at https://audiobyte.net

Additionally, our support team is ready to assist you with any question and issue regarding our products. Refer to the contact details below:

Audiobyte S.R.L.
Address: Strada Gheorghe Doja, nr. 197, Suceava
ZIP Code: 720147, Romania
Phone: +40 745 167 868 – General inquires

Email:
support@audiobyte.net – Technical support
contact@ audiobyte.net – General inquiries

Product Features:

Advanced digital signal conditioning, including reclocking and upsampling (transcoding), takes place in the digital domain before transmitting the refined data streams to an external DAC.

Conventional high-performance computers are bulky, energy-intensive, and often introduce unwanted noise into audio systems. Despite this, many enthusiasts employ them to upsample classic PCM encoding into high-rate DSD. SuperHUB's ultra-efficient, FPGA-based audio engine executes powerful upsampling, rendering the need for a cumbersome computer in your setup obsolete.
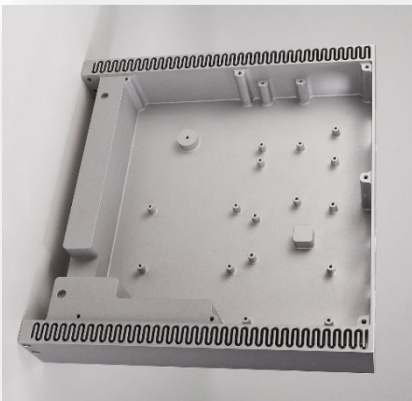
With such special hardware, we had to push the envelope for a matching case, so we designed a chassis from a solid block of aluminium, precision machined to house our components. The result is a blend of beauty and functionality, ensuring high structural integrity, adequate cooling and vibration resistance in a package that minimizes seams and joints. Before anodization, the case undergoes a sandblasting treatment that results in a smooth surface a matte look that elegantly compliments your audio setup.

The SuperHUB is constructed from the ground up on an exclusive Audiobyte hardware platform. To achieve the best possible results, we designed and built a new mainboard from scratch with a 10-layer custom PCB that allowed our engineers to optimize the signal path. Together with a linear power supply, this guarantees a seamless synergy between the audio stream and the processing capabilities, culminating in an exceptional audio experience.
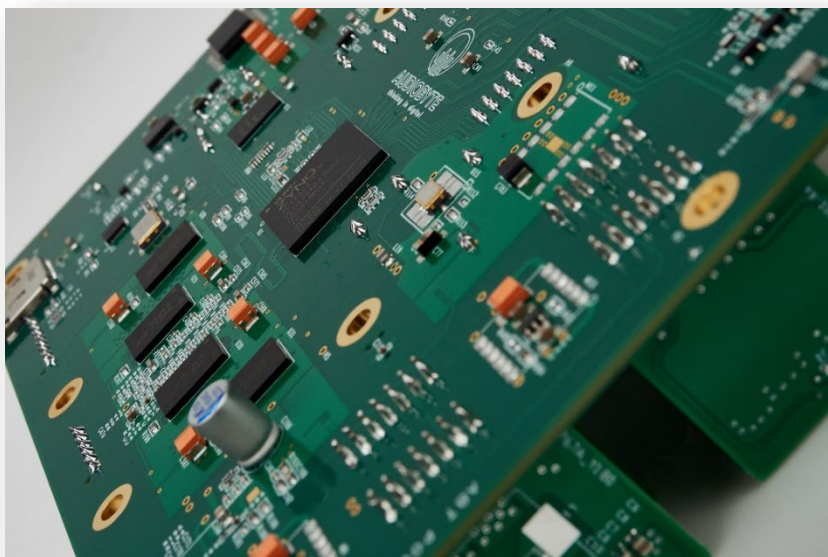
Matching Audiobyte Products

To enhance your SuperHUB Streaming experience, check out the other Audiobyte offerings in the line-up, designed to work together and offer a cohesive aesthetic.

The **SuperVOX** DAC is a high-end digital-to-analogue converter that features a unique multi-bit DSD design, custom built around a FPGA (Field-Programmable Gate Array) running Audiobyte proprietary code. This ensures precise digital signal processing without the depth and emotion loss that is sometimes associated with usage of off-the-shelf dac chips.

The **SuperHEAD** is a premium headphone amplifier designed to drive even the most demanding headphones. It offers powerful, detailed amplification, ensuring that every nuance of your music is faithfully reproduced. Expect high power output suitable for a wide range of headphones and a low noise floor, ensuring that your get the most out of your equipment.

The **SuperRACK** is a custom-designed rack specifically crafted to house the SuperHUB Streamer, SuperVOX DAC, and SuperHEAD Headphone Amplifier with an optimized footprint. With a hybrid wood and metal construction, it not only ensures that your devices are neatly organized but also provides a stable and vibration-free environment.

Package Contents

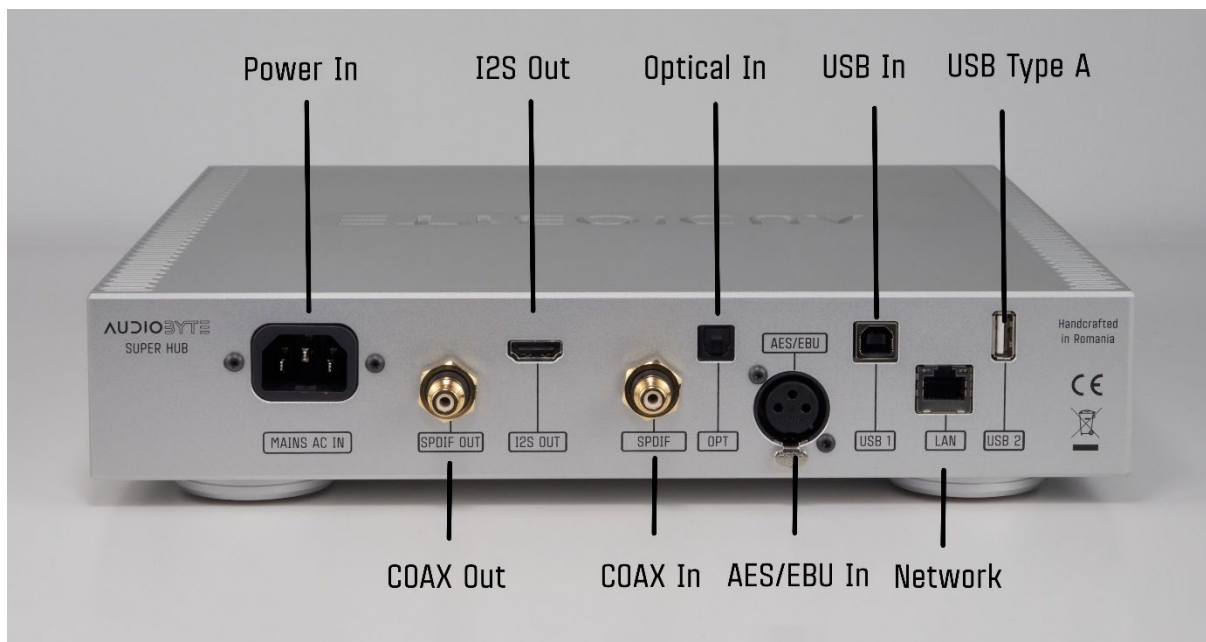The package you received should contain:

- A SuperHUB unit (identifiable by a unique serial number on the back);
- Black velvet cover.
- User Manual
  Note: we know that our customers will use an audiophile grade power cord, therefore, in order to be more environment friendly, a power cord is not provided.

I/O Overview

Back Panel

Power In: Connect the power mains with a suitable power cord with IEC C13 connector. The device will be shipped without an included cable, so users have the choice to customize their setup with their preferred solution. The units will be configured for either 110 AC or 230 AC. Conversion from one supply to another can be done by replacing the fuse and setting the supply switch on the base of the device to the correct position. Please refer to the specification sheet for details regarding designed fuse values.

Coaxial Out (S/PDIF): This port can be used to connect compatible digital to analog conversion devices.

I2S Out: This is a HDMI port used for connecting devices that support the I2S (LVDS) protocol. Please use a high-quality HDMI cable to ensure data integrity and optimal audio performance. <u>Please Note</u>: while the device is compatible with any standard HDMI type cable, the protocol used is not compatible with standard HDMI devices such as TVs or A/V receivers that do not have support for a I2S standard.

Coaxial In (S/PDIF): This port can be used for connecting digital sources with appropriate output. It provides a high-quality connection and is compatible with most digital audio devices.

Optical In: The Optical In port (also known as Toslink), offers a fibre-optic digital audio connection. Align the connector correctly to ensure a secure connection.

AES / EBU In: The AES/EBU In port provides a professional-grade digital audio input using an XLR connector.

USB Type B Input: This port can be used as input from external sources such as PCs, laptops or other streaming devices with USB support.

Network: Wired Gigabit Network interface. This is the suggested network connection for playing Hi-Resolution content. Connect this interface to your router via an ethernet cable.

**USB Type A:** USB output (native only)

Front Panel

The front panel of the device has a simple design with no physical buttons. All interactions with the device can be done either with the IPS touchscreen or through the dedicated Android and iOS apps.

## Product operation – starting and shutting down the device

The device is preinstalled, initialized and tested before delivery. After connecting the device to power, the AUDIOBYTE logo will appear on the screen. The device is configured to turn on automatically once plugged in for the first time. If shut down manually, device will be in a low power state waiting for user input. To turn on the device, simply touch anywhere on the screen and the boot sequence should be initiated.

Device power on screens
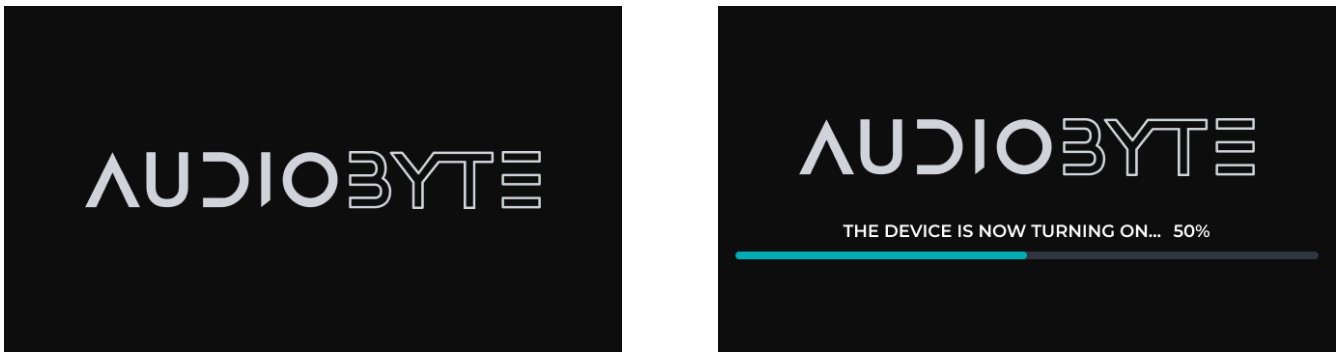
Please allow up to a few minutes for initialization. We also recommend connecting the device to the network with an ethernet cable. After the start-up sequence is finished, the device should be in the main screen, as seen below:

SuperHUB main screen
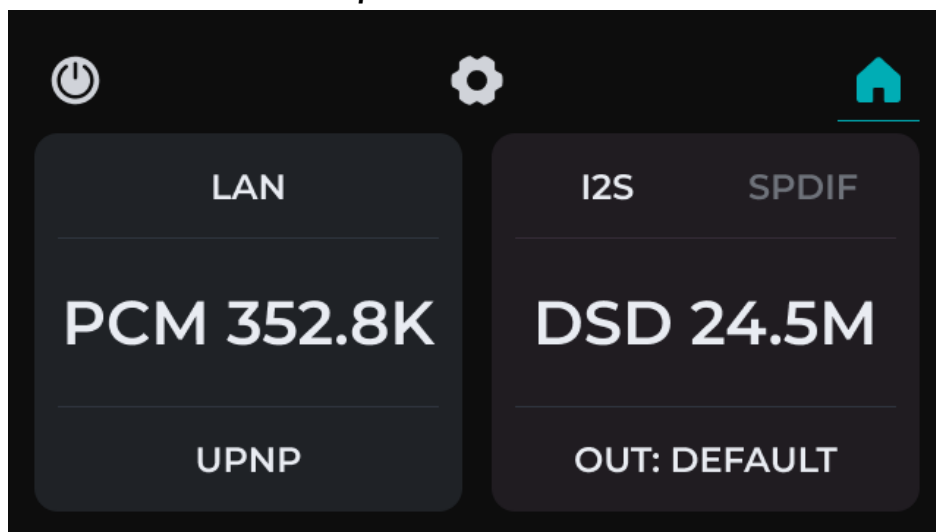
After first startup, we strongly recommend checking for updates as explained in the software and firmware section.

To shut down the device via the touchscreen, please press the power button in the upper left corner of the screen. A confirmation window will prompt, as seen below:
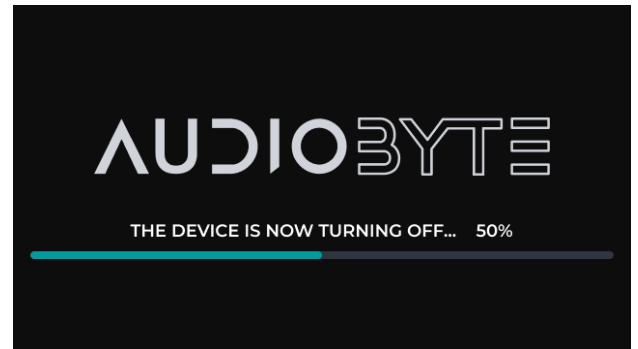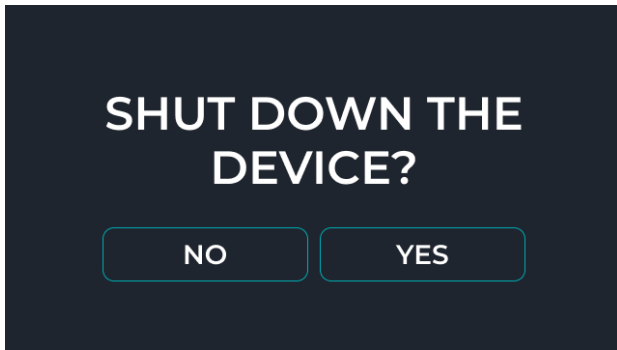

Please press YES and wait for the shutdown sequence to finish. **We strongly recommend NOT to remove the power cable without shutting down the device and waiting for the power off procedure to finish!**

While accidental forced shutdowns can happen sometimes, internal memory errors can occur. Please contact our support team if the power on / power of cycles do not complete successfully.

Menu navigation and device setup

All the functions of the device and settings can be accessed through the HOME screen. An overview of the HOME menu can be found below:
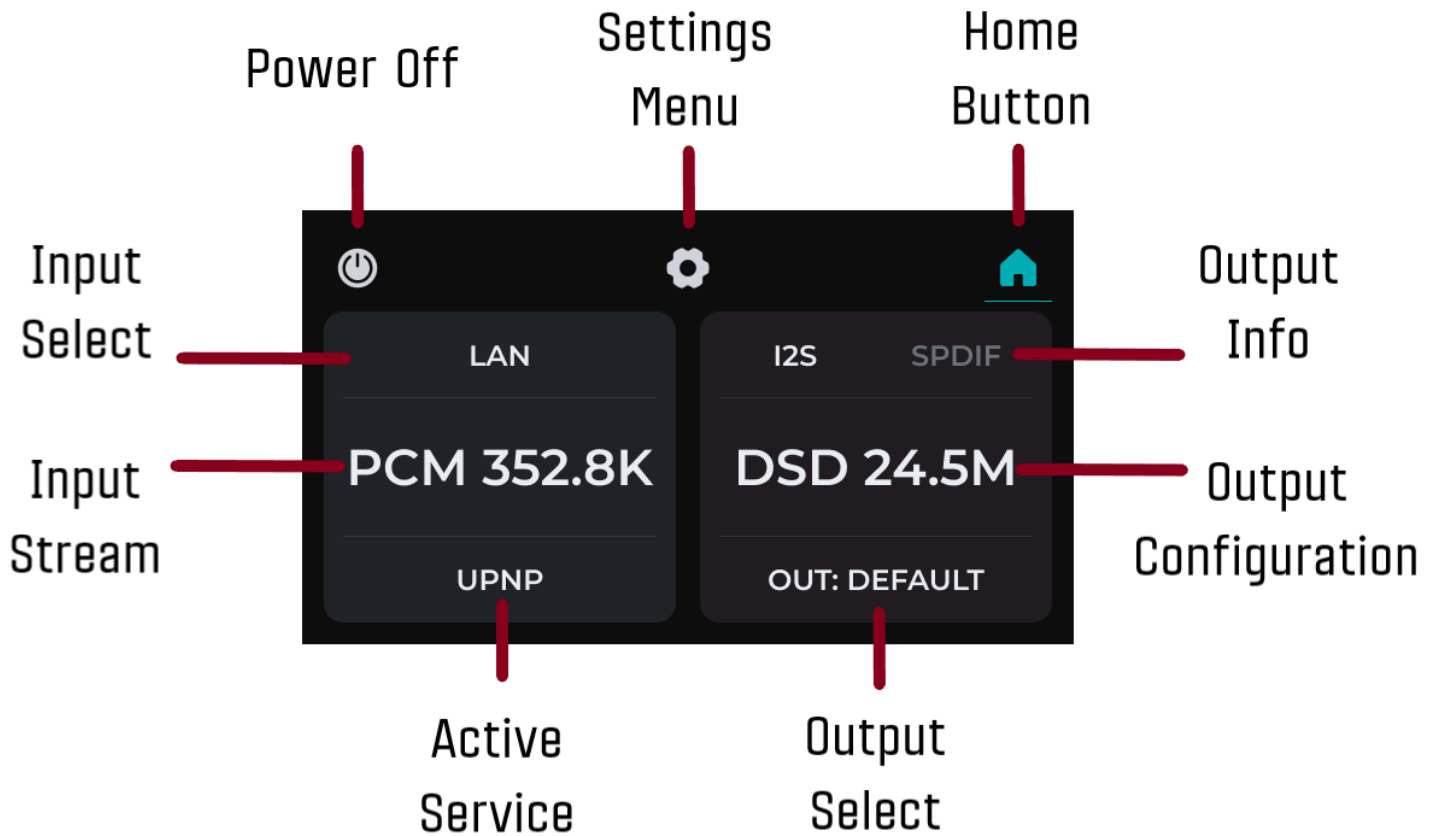

Power Off: Press this button to shut down the device. A confirmation window will appear.

Setting Menu: Press this button to access the settings menu, as showcased below. The following submenus will be available – Network Services (also accessible via output configuration shortcut on the home screen), Audio settings - explained in detail below, and About Device.
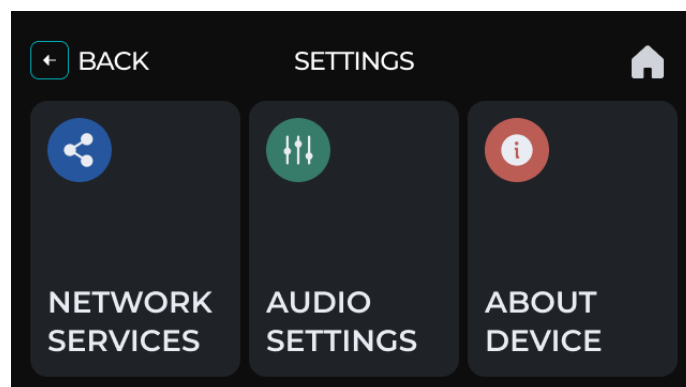
Home Button: Press to return to the Home screen.

Input Select: Shows the current active input. Press to be redirected to the „select input" menu, as shown below. Press on the preferred input to activate.
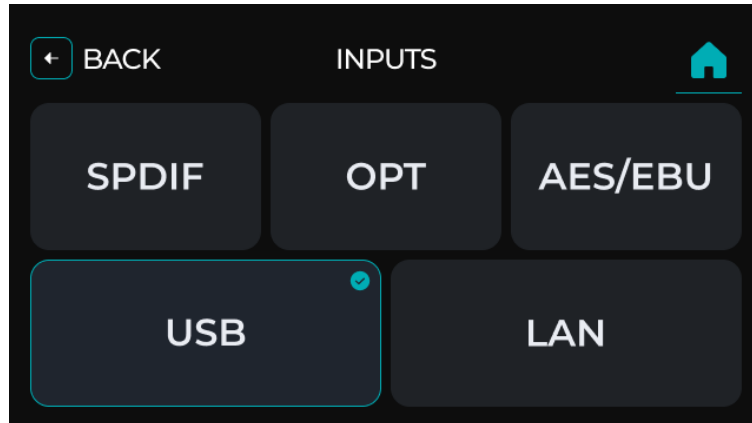

Input Stream: This section will show the type of audio stream (format, sample rate)

Output Info: Available when output is set to „Superhub". Shows the selected setting for the I2S and S/PDIF outputs. Please note that both outputs operate at the same time, this will only toggle what settings will be displayed. Actual settings will depend on the port used for playback.

Output Configuration: Display the current output stream, after digital processing. It is also a shortcut to the Audio Settings page, also available via the Settings Menu.

Output select: Access output select menu. For connecting a DAC via USB, users need to select this option. Audio stream will bypass audio processing.
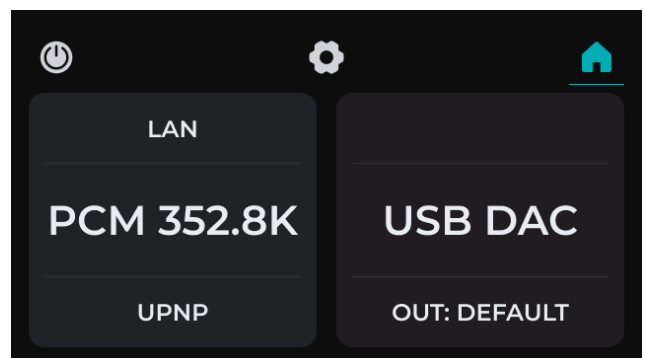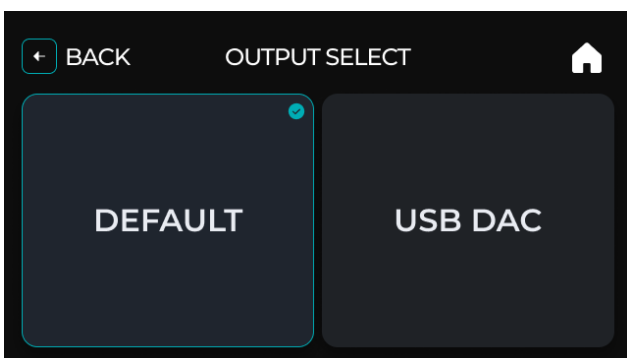

IMPORTANT NOTE: USB DAC option is available ONLY for LAN input. To correctly revert to default output, prior to selecting the „Default" option, please remove any USB cable from the „USB In" port of the device.

Active Service: Displays the current Network service that is active. On touch it is a shortcut to the Network Services settings page. Please note: The device can run service in background regardless of input, but services are usable only in LAN.

Network Services

Your streamer is equipped with a variety of network services to cater for most listening experiences. These services allow integration with various streaming and control protocols, with more to be added in the future.
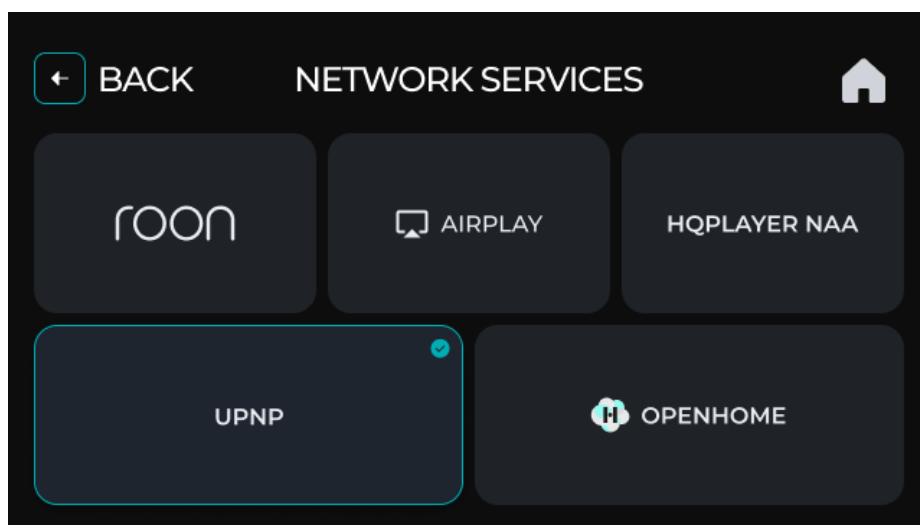
Roon Bridge turns your audio streamer into an endpoint for the Roon music management and listening solution. This service allows the streamer to be remotely controlled and streamed to via the Roon software. This service requires a Roon Core running on a separate device, installed on the same network.

AirPlay support enables wireless streaming from Apple devices, including iPhone, iPad, and Mac. This service is compatible with a wide range of audio applications and offers convenient playback control from your Apple device.

Airplay password: audiobyte

HQPlayer NAA (Network Audio Adapter) function allows your streamer to work as an output device for the HQPlayer software, known for its high-quality oversampling, noise shaping, and dithering capabilities. Requires HQPlayer software running on a network-connected computer.

UPnP enables seamless network-based streaming from a variety of UPnP-compatible software and devices. It is a widely supported protocol that allows for flexible streaming solutions across different platforms.

OpenHome extends the capabilities of UPnP by adding features like streaming from cloud services, saving playlists, and more precise control over playback. It is a standard used by various high-end streaming services and applications.

NOTES:

- Ensure your network is stable and properly configured for optimal performance of these services.
- Compatibility with specific apps and services may depend on their respective versions and updates.
- For detailed setup instructions and compatibility information, refer to the specific sections for each service in this manual.

Planned services:
- Spotify Connect (Spotify streaming is currently available via third party services such as AirPlay)
- Tidal Connect (Tidal is currently available via third party services such as UPnP or Roon)
- On-line Radios

Audio settings

To access the audio settings page, access the settings menu and the appropriate submenu, as pictured below.
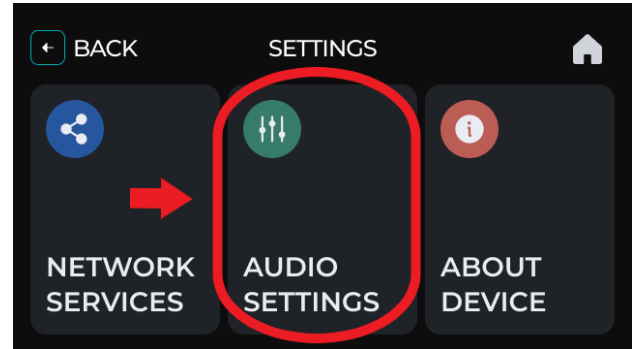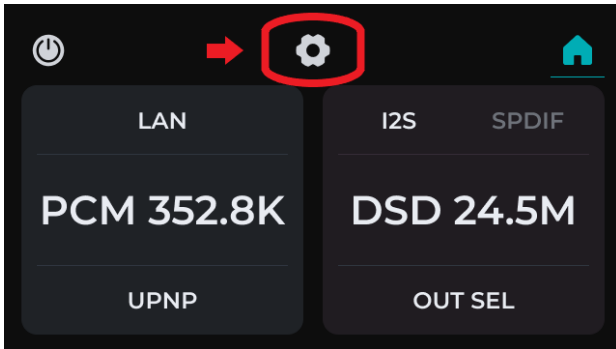
In the settings menu, the following options will be available, PHASE, I2S and S/PDIF. Touch to access the desired settings submenus.
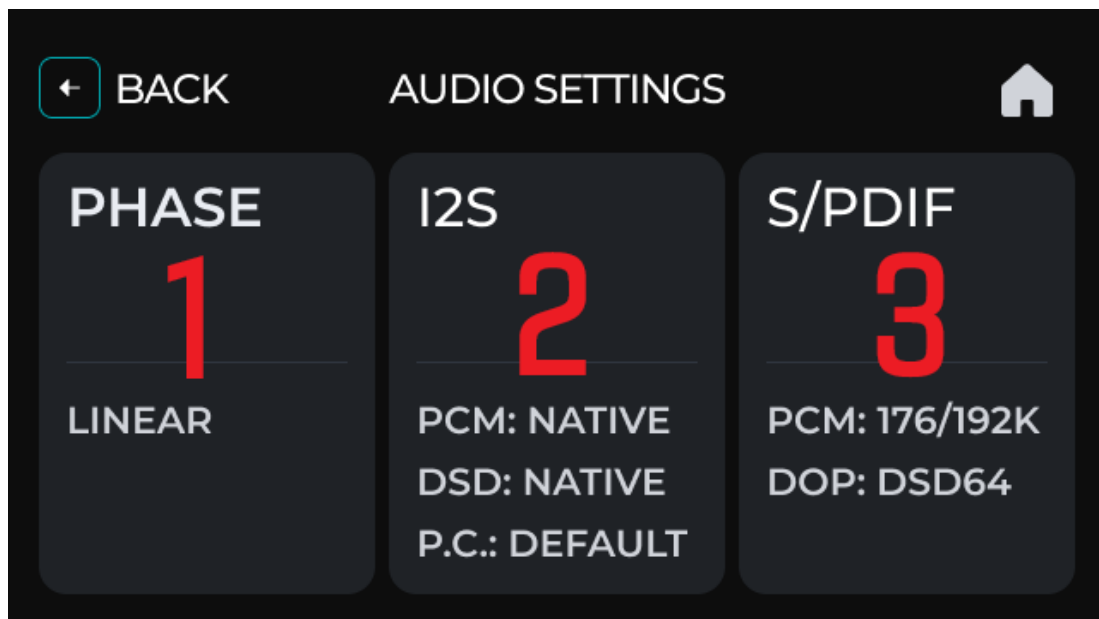
1. PHASE: Your audio streamer offers three selectable phase response settings: Linear, Hybrid, and Minimum. Each setting may offer a different listening experience and can be chosen based on your personal preference and the specific characteristics of your audio setup.
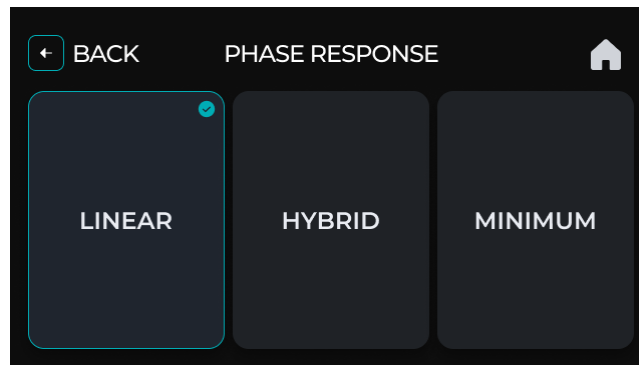
Linear Phase Response: The Linear Phase Response has ringing evenly distributed both before and after the impulse. This preserves phase integrity of the audio signal throughout the frequency range. This setting ensures that all frequencies reach the listener's ears at the same time, resulting in a highly accurate and natural sound reproduction.

Ideal For:
- Critical listening environments, such as studio monitoring.
- Audiophiles seeking the most accurate representation of the original recording.
- Genres where timing and spatial cues are crucial, like classical or jazz.

Hybrid Phase Response: Hybrid Phase Response is a balance between linear and minimum phase characteristics. It aims to preserve timing accuracy while reducing pre-ringing, a type of distortion that can occur in linear phase filters.

Ideal For:
- Listeners who prefer a balance between accuracy and a natural, smooth listening experience.
- Versatile listening scenarios, from casual to critical listening.
- A wide range of music genres, offering a good compromise between fidelity and warmth.

Minimum Phase Response: The Minimum Phase Response setting eliminates pre-ringing entirely. This creates a warm and engaging sound, often preferred for its musicality, at the expense of some phase accuracy.

Ideal For:
- Enjoying music in a more relaxed, less analytical setting.
- Listeners who prefer a warm, engaging sound characteristic.
- Genres such as rock, pop, or electronic, where the emphasis is more on the overall listening experience rather than on analytical accuracy.

Note: The choice of phase response setting is subjective and can vary depending on the content, listening environment, and personal preference. Experiment with each setting to find the one that best suits your listening style and audio system.

2. I2S Settings: Your streamer allows for configuration of the I2S protocol, depending on your matching equipment and desired settings. The following can be customized:

- **UPSAMPLING** – depending on incoming audio stream, you have the option to use PCM to DSD or DSD to PCM conversion and upsampling in real time using the powerful Audiobyte proprietary audio processing engine carefully designed to preserve the integrity and quality of the original recording. The choice to convert between PCM and DSD or to upsample should be based on the specific requirements of the playback system, the nature of the audio content, and personal preferences regarding sound quality.
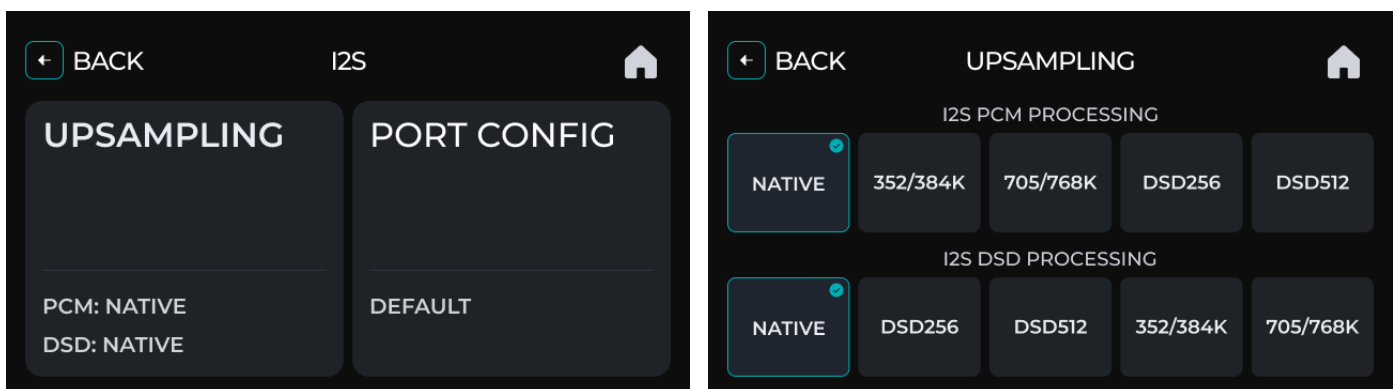
PCM to DSD Conversion and Upsampling considerations

DSD is known for its high sampling rates and distinctive method of encoding digital audio data. Converting PCM to DSD can result in a smoother, more analog-like sound. This is often described as being more natural and less harsh than standard PCM. DSD operates at a much higher sampling rate than most PCM formats. This higher rate spreads quantization noise over a broader frequency spectrum, which is far above the audible range, potentially leading to a clearer audio signal. Upsampling PCM to a higher DSD rate can enhance the dynamic range of the audio, allowing for finer gradation of quiet and loud sounds and potentially revealing more details in the music.

For audio systems optimized for DSD playback, converting PCM to DSD can make the most of the system's capabilities, offering an improved listening experience.

DSD to PCM Conversion and Upsampling considerations

PCM is a more universally accepted and widely used format. Converting DSD to PCM ensures compatibility with a broader range of conversion hardware which might not support DSD. Since PCM playback is well-established and consistent across various devices, converting DSD to PCM can ensure predictable and stable playback performance.

- **PORT CONFIGURATION** – You have the option to either let the device handle the config via the default setting (pictured left), or use advanced custom settings (pictured right).
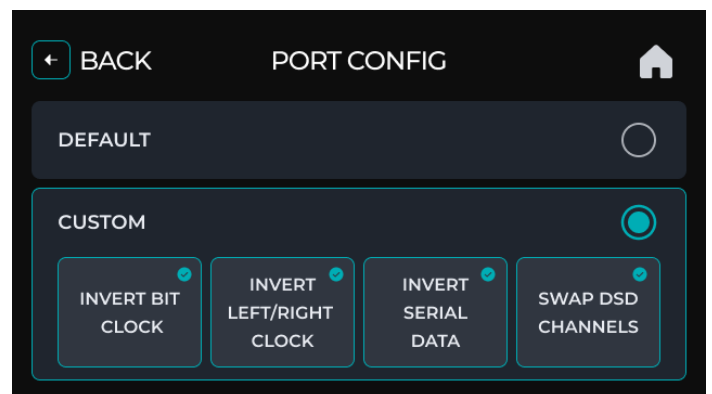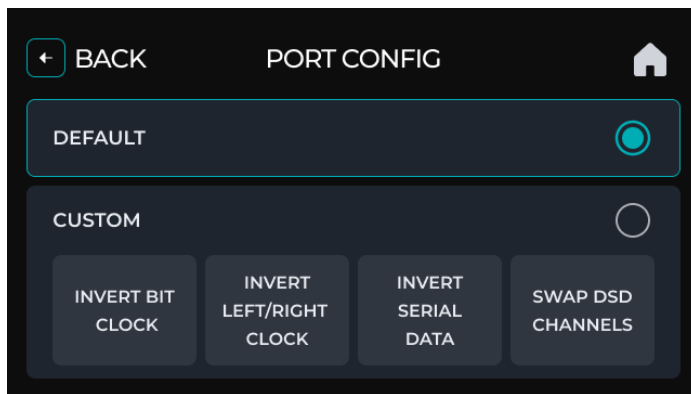
The default setting has the following pinout configuration:

pin 1 – PCM data+/DSD data R+
pin 3 – PCM data-/DSD data R-
pin 4 – PCM bclk+/DSD bclk+
pin 6 – PCM bclk-/DSD bclk-
pin 7 – PCM lrclk+/DSD data L+
pin 9 – PCM lrclk-/DSD data L-
pin 10 – PCM mclk+ (not used)
pin 12 – PCM mclk- (not used)
pin 13 – not used (PCM/DSD mode is detected automatically)
pin 14 – not used (PCM/DSD mode is detected automatically)
pin 15 – SCL (not used)
pin 16 – SDA (not used)
pin 17 – GND
pin 18 – 5v for detection(output)
pin 19 – hot plug detect, active high, 5V(input)

a. The **'Invert Bit Clock'** option reverses the polarity of the bit clock signal, swaps pins 4 <=> 6 in PCM mode. This setting can be useful when interfacing with certain digital audio devices that require an inverted bit clock for proper synchronization and data interpretation.

When to Use: Use this setting if you encounter issues with signal synchronization or if recommended in the compatibility documentation of your connected digital audio device

b. **Invert Left/Right Clock**. This option inverts the left/right clock signal, swaps pins 7 <=> 9 in PCM mode. It is useful for ensuring correct channel alignment with some DACs or digital interfaces that interpret the left/right clock signal inversely.

When to Use: Select this option if you experience channel misalignment (left channel content playing on the right and vice versa) with your external DAC or digital audio interface.

c. **'Invert Serial Data'** reverses the polarity of the serial data stream, swaps pins 1 <=> 3 in PCM mode. This adjustment can resolve compatibility issues with certain DACs or digital receivers that require an inverted data stream.

When to Use: Employ this setting if you face data interpretation issues, such as distorted or unclear audio output, which might indicate a serial data polarity mismatch with your connected device.

d. The **'Swap DSD Channels'** option switches the left and right audio channels in Direct Stream Digital (DSD) format (swaps DSD DATA R with DSD DATA L). This can correct channel swapping issues that are sometimes encountered with specific DSD-capable devices.

When to Use: Activate this setting if you notice that the stereo imaging is reversed (i.e., right-channel audio is coming from the left speaker and vice versa) during DSD playback

These settings are advanced options and should be modified only if necessary. Changes in port configuration might require a restart of the device to take effect. If you are unsure about altering these settings, refer to the documentation of your connected audio devices or contact our technical support for guidance.

3. S/PDIF Settings

Your audio streamer includes specific settings for the S/PDIF (Sony/Philips Digital Interface) output, allowing you to optimize its performance according to your system's capabilities and your personal preferences.
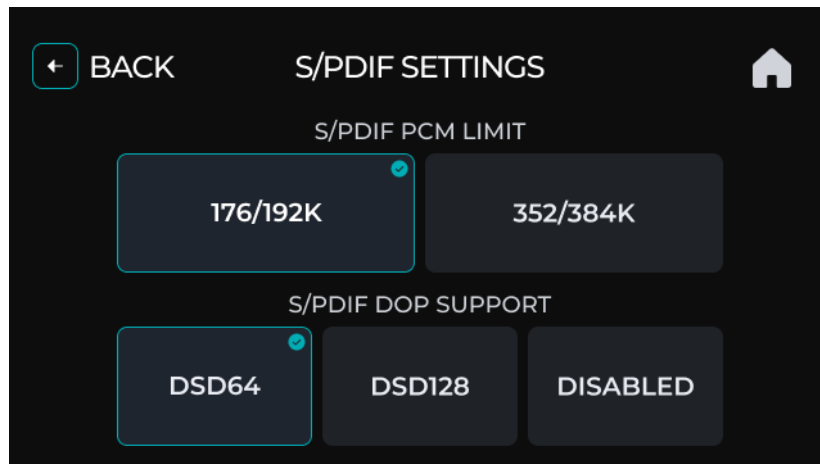
PCM Limit - This setting allows you to select the maximum sample rate for PCM audio that is transmitted over the S/PDIF connection. You can choose between two options: 176/192kHz or 352/384kHz.

When to Use:
Choose the appropriate limit based on the highest PCM sample rate supported by your connected DAC or digital receiver. Setting a limit higher than your device supports may result in no audio or distorted sound.

DSD over PCM (DoP) Support this allows you to enable or disable the transmission of DSD (Direct Stream Digital) audio over PCM streams. This setting is crucial for compatibility with DACs that support DSD over PCM.

When to Use:
Enable DSD64 or DSD128 if your DAC supports DSD over PCM. Choose the highest DSD rate that your DAC can handle for the best audio quality.

Disable DoP if your DAC does not support DSD or if you prefer to use PCM only.

Software and Firmware Update

Updating the SuperHUB is a straightforward process. For this process a network connection with internet access is required. From the home screen of the device press the settings button in the top-mid menu, and then proceed to the „**About device**" section. On this screen you will have basic information about the device, including the serial number and the firmware version, as well as a button to initiate a check for available updates.

Activating the update sequence
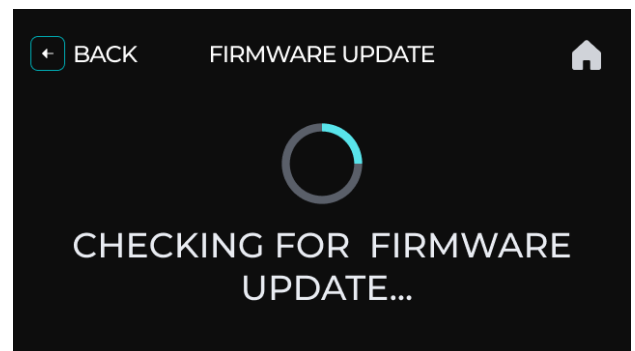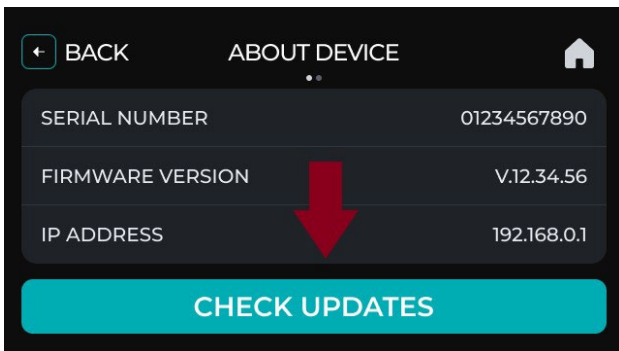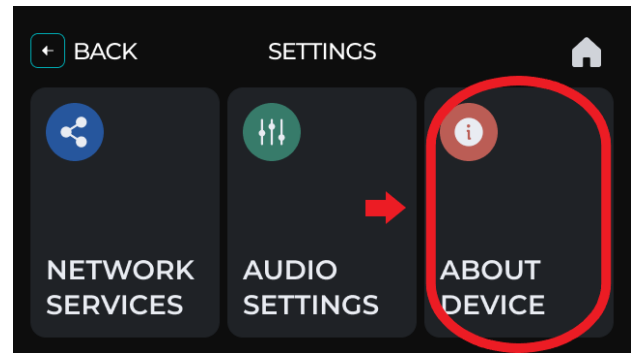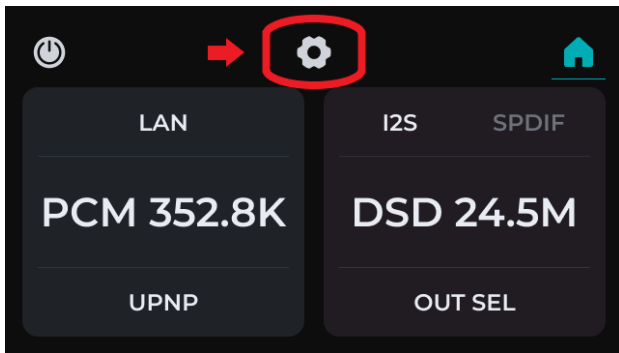
The device will proceed to check the latest available firmware and software version on the Audiobyte servers. If such updates exist, a prompt will appear asking for confirmation for updates installation.
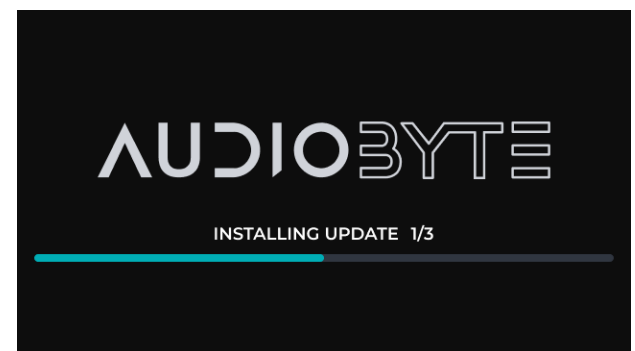
During the installation, please do not power off the device. After update completion, a restart of the device is necessary. In some particular cases, updates might require more than one device restart in order to be successfully completed. In such cases, the user will be notified.

We recommend checking for updates immediately after first setup.
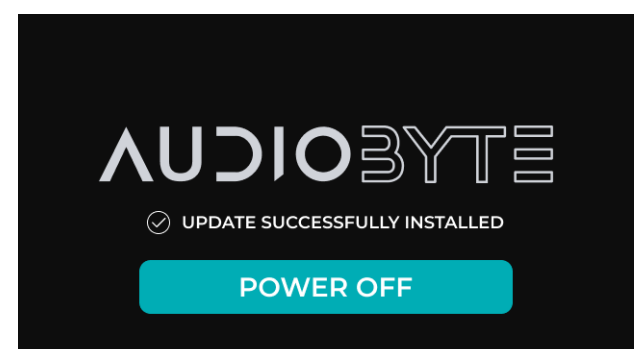
Remote Control Application Description and Functionality

<u>**IMPORTANT NOTE**</u>: Device control is done via the local network. For the apps to correctly identify and connect to the SuperHUB, the phone needs to be connected to the same network as the device.

Please access the device dedicated app store or the following links or QR codes to download the AUDIOBYTE control application:

Android
https://www.audiobyte.net/apps/android/superhub

iOS
https://www.audiobyte.net/apps/ios/superhub
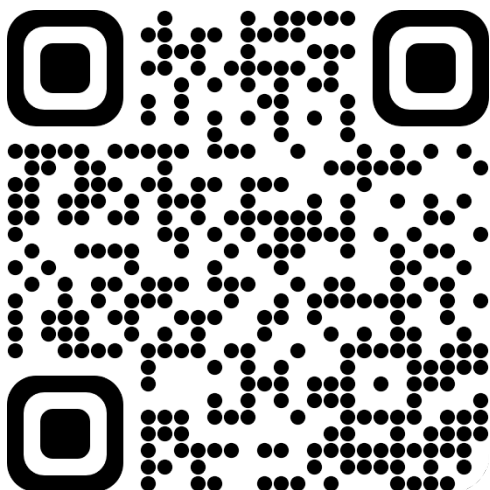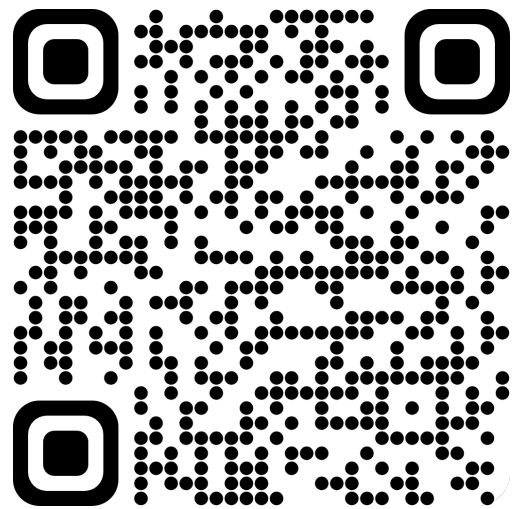
All variants of the app have identical functionality and graphics, so explanations are applicable to both.

When starting the application on your phone or tablet, it will enter a network discovery mode to identify any devices running on the network. Please make sure your SuperHUB is connected to the same network. You will see your Audiobyte devices and have the option to select the one you wish to control.

Alternatively, you can also input the IP or Hostname of the device manually. You can find this information displayed on the device in the Settings/About menu.

Network discovery – automated   *Network discovery – manual*
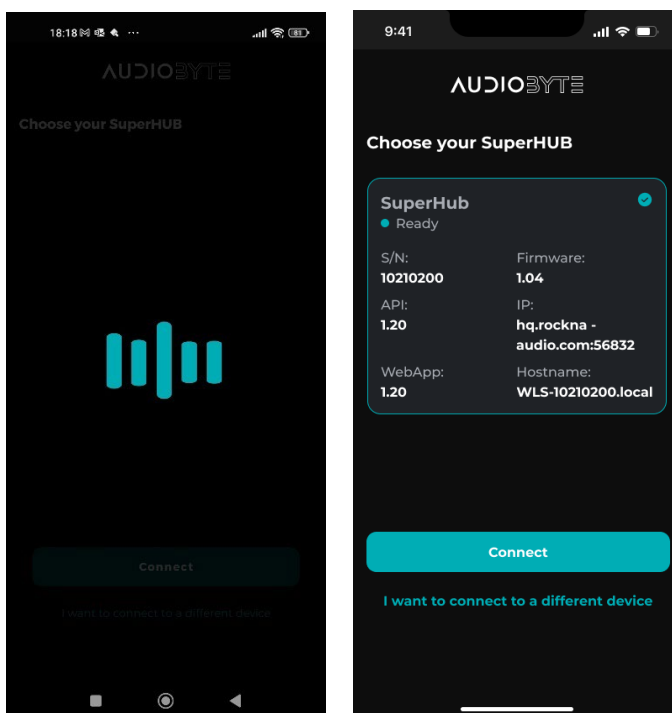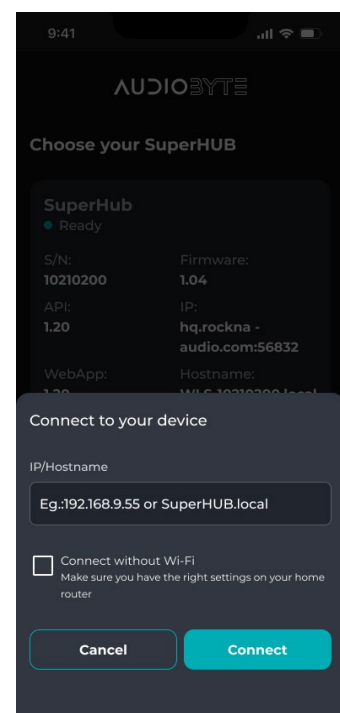
Through the app you can view and control all settings of the device including turning it off. The home-screen of the application will have the same information as the device Home screen, as well as a menu with the following options:

Home: Will show the same information as the home screen of the device:
          - power off button;
          - Active input;
          - Active network service;
          - Input stream information;
          - Output stream info and configuration.
Input: Access the input select page with the same options as the device: S/PDIF, AES/EBU, Optical, USB and LAN

Services: Access the services page to select the desired network service from the available list

Settings: Access the setting page with dedicated tabs for Phase response settings, I2S port configuration and S/PDIF settings

About: A page with a device information tab and a software update tab

App Home screen
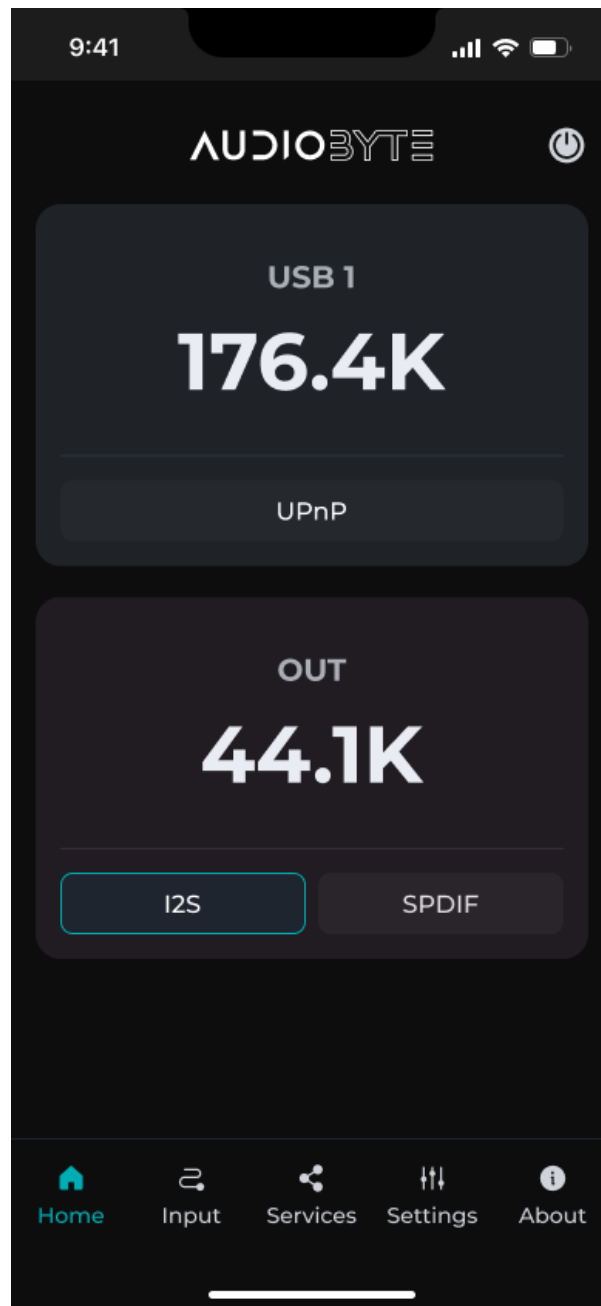
Mains Voltage Selection

Changing the SuperHUB mains input voltage to 220V or 110V AC is done using the switch on the bottom of the unit, as showcased in the pictures below.
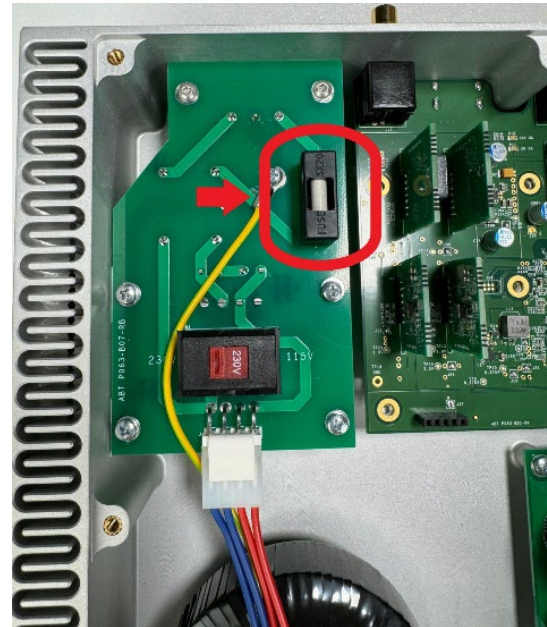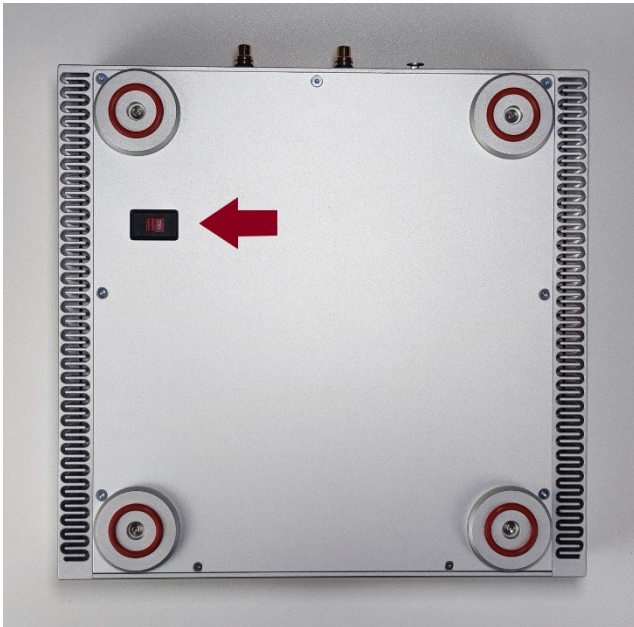
Note: The fuse must be changed accordingly so use a 5x20mm fuse with the following ratings:
- Quick blow, ceramic, 1.25A/250 V AC for 220V AC Mains;
- Quick blow, ceramic, 2.50A/250 V AC for 110 V AC Mains.

Specifications Sheet

FPGA: AMD ZYNQ 7000 series SoC

Display: 3.0-inch IPS 24bit color touch screen
Resolution: 640 x 360 px

Body material: Aluminium alloy
Finish: Sandblasted Anodized
Colors: Matte Silver / Black
Weight: 6 KG
Size: 290 * 300 * 62 mm (l * w * h)

Network protocol: NFS / SMB v1-v2-V3 / UPnP
Ethernet: RJ-45(10/100/1000Mbps)

Streaming Services: Roon Bridge, AirPlay, HQPlayer NAA, UPnP,
                                          OpenHome, Tidal / Qobuz*

Premium subscription required for some streaming services such as Spotify, Qobuz and Tidal

Features in development[1]: Spotify Connect, Tidal Connect, CamillaDSP

Control apps: Android, iOS

Supply voltage: 110V AC / 220V AC
Power: 20 W

Digital inputs: S/PDIF RCA: Up to PCM 384KHz, DSD128
                                          AES/EBU: Up to PCM 384KHz, DSD128
                                          S/PDIF Optical: Up to PCM 192KHz, DSD64[2]
                                          USB Type B: Up to PCM 384KHz, DSD512

Digital outputs: I2S HDMI LVDS: 44.1-384k PCM, DSD64-512
                                          S/PDIF RCA: 44.1-384k PCM, DSD64-128
                                          USB Type A: Up to PCM 384KHz, DSD512**
                                                    **Native – without digital processing*

Digital processing: Hardware based Audiobyte proprietary PCM to DSD
                                          DSD to PCM, Upsampling, Reclocking

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[1] As of current release. Please check the audiobyte website for updates.

[2] Guaranteed sample rate for optical is 96K. Depending on optical transmitter/receiver hardware, higher than 96k is possible.

Safety Precautions

1) This device is meant for indoor use only.

2) Protect device from excessive heat, humidity and liquid filled objects, such as vases.

3) Clean only with dry cloth. Household cleaners or solvents can damage the finish of the SuperHUB. Please clean and handle the product only after disconnecting from mains power for at least five minutes.

4) Do not remove product cover while the device is plugged in the mains outlet.

5) Use earth grounded outlet if available.

6) Do not move the device while operational.

7) Lightning or static electricity can affect normal operation of the device. Make sure that it is unplugged during a thunderstorm.

8) Make sure the unit is unplugged if it is not to be used for a long period of time.

9) In case of product damage in any way, such as power cable or plug damage, spilled liquids, physical shocks, exposure to moisture, or if the product does not operate normally, service is required o

10) Keep this user manual for future reference.

AUDIOBYTE WARRANTY
Three (3) Years

WARRANTY COVERAGE:
AUDIOBYTE warranty obligation is limited to the terms set forth below.

WHO IS COVERED:
AUDIOBYTE warrants the product to the original purchaser or the person receiving the product as a gift against defects in materials and workmanship as based on the date of original purchase from an Authorized Dealer. The original sales receipt showing the product name and the purchase date from an authorized retailer is considered such proof.

WHAT IS COVERED:
The AUDIOBYTE warranty covers new products if a defect arises and a valid claim is received by AUDIOBYTE within the Warranty Period. At its option, AUDIOBYTE will either (1)repair the product at no charge, using new or refurbished replacement parts, or (2)exchange the product with a product that is new or which has been manufactured from new, or serviceable used parts and is at least functionally equivalent or most comparable to the original product in AUDIOBYTE current inventory, or (3)refund the original purchase price of the product. AUDIOBYTE warrants replacement products or parts provided under this warranty against defects in materials and workmanship from the date of the replacement or repair for one (1) year or for the remaining portion of the original product's warranty, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes AUDIOBYTE's property. When a refund is given, your product becomes AUDIOBYTE'S property.

Note: Any product sold and identified as refurbished or renewed carries a one (1) year limited warranty. Replacement product can only be sent if all warranty requirements are met. Failure to follow all requirements can result in delay.

WHAT IS NOT COVERED - EXCLUSIONS AND LIMITATIONS:
This Limited Warranty applies only to the new products manufactured by or for AUDIOBYTE that can be identified by the trade-mark, trade name, or logo affixed to it. This Limited Warranty does not apply to any non-AUDIOBYTE hardware product or any firmware, even if packaged or sold with the product. Non-AUDIOBYTE manufacturers, suppliers, or publishers may provide a separate warranty for their own products packaged with the bundled product. AUDIOBYTE is not liable for any damage to or loss of any programs, data, or other information stored on any media contained within the product, or any non-AUDIOBYTE product or part not covered by this warranty. Recovery or reinstallation of programs, data or other information is not covered under this Limited Warranty.

This warranty does not apply (a)to damage caused by accident, abuse, misuse, misapplication, or non-AUDIOBYTE products, (b)to damage caused by service performed by anyone other than AUDIOBYTE or Authorized Service Location, (c)to a product or a part that has been modified without the written permission of AUDIOBYTE, or (d)if any AUDIOBYTE serial number has been removed or defaced, or (e) product, accessories or consumables sold "AS IS" without warranty of any kind by including refurbished AUDIOBYTE product sold "AS IS" by some retailers.

This Limited Warranty does not cover:

• Shipping charges to return defective product to AUDIOBYTE.

• Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of systems outside of the product.

• Product repair and/or part replacement because of improper installation, connections to improper voltage supply, abuse, neglect, misuse, accident, unauthorized repair or other cause not within the control of AUDIOBYTE.

• Damage or claims for products not being available for use, or for lost data or lost firmware.

• Damage occurring to product during shipping.

• A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.

• A product used for commercial or institutional purposes (including but not limited to rental purposes).

• Product lost in shipment and no signature verification receipt can be provided.

• Failure to operate as per Owner's Manual.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY FOR THE CONSUMER. AUDIOBYTE SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusions or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

Disposal Information

For private households:

Information on Disposal for Users of WEEE This symbol on the product(s) and / or accompanying documents means that used electrical and electronic equipment
(WEEE) should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge. Alternatively, in some countries, you may be able to return your products to your local retailer upon purchase of an equivalent new product. Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.
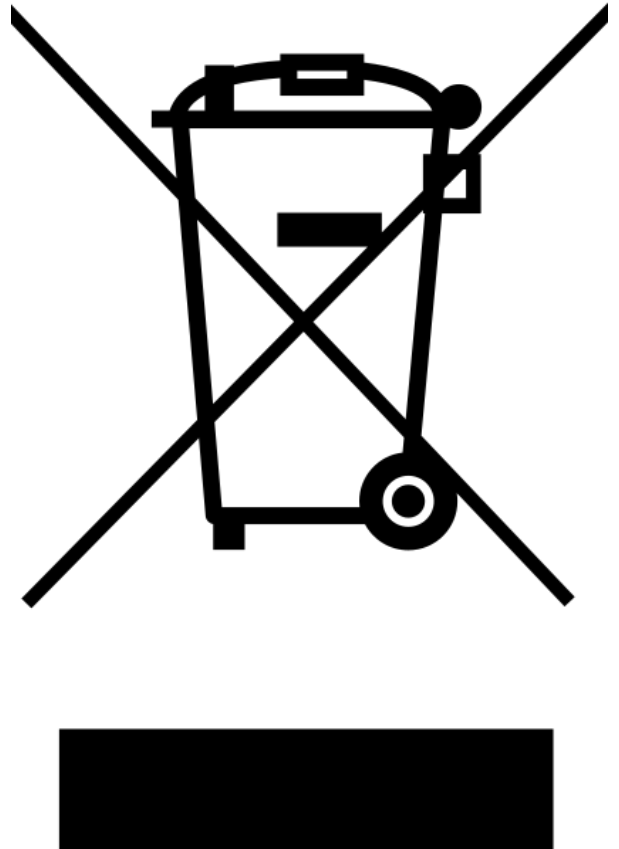
For professional users in the European Union:

If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information.

For disposal in countries outside of the European Union:
This symbol is only valid in the European Union (EU). If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.

Document Revision History

Version	Date	Description
1.00	18-02-2024	Initial release
1.01	20-03-2024	Updated Airplay password, update on USB output