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Welcome

Thank you for purchasing the exaSound Sigma Streamer!

The exaSound Sigma connects your exaSound DAC to the home network and delivers seamless, top-quality streaming with Roon, HQPlayer, UPnP and Airplay.

Extended Hi-Res audio support up to DSD256, DXD, PCM 384 kHz/32bit and MQA is available over wired Ethernet and Wi-Fi 802.11 AC connection.

Tidal, Qobus, Spotify and other Internet streaming services are available with Roon or with popular apps including Bubble UPnP and MconnectHD.

We hope that the exaSound Sigma Streamer will help you to enjoy world-class music experience for years to come. Please take a few minutes to read right through this manual. Investing a little time now is the best way to ensure that you will make the most of your investment.

Your satisfaction is our highest priority.

Happy listening,

exaSound Audio Design
www.exaSound.com
CustomerService@exaSound.com
Safety Information

Explanation of Graphical Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the Device.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plug, receptacle, and the point where it exits from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the device, the device has been exposed to rain or moisture, does not operate normally, or has been dropped.

Precautions

- Before connecting the AC power adapter cord to the device, make sure the voltage designation of the power adapter corresponds to the local electrical supply. If you are unsure of your power supply, contact your local power company. The acceptable power input range is AC ~ 100V-240V, 50/60Hz
• The device is still receiving power from the AC power source as long as it is connected to the wall outlet, even if the device itself has been turned off.
• Unplug the power adapter if you are not going to use the device for an extended period of time. Hold the power adapter when unplugging. Do not pull on the cord.
• The power adapter is used as the mechanism for cutting off power, therefore make sure it is easy to unplug.
• To ensure proper ventilation around this product, do not place this product on a sofa, bed or rug.
• High temperature will lead to abnormal operation of this device. Do not expose this device or batteries to direct sunlight or near heating objects.
• When moving the device from a cold location to a warm one, or vice versa, moisture may condense on components inside the device. Should this occur, the device may not operate properly. In such a case please turn the device off for 1-2 hours to facilitate moisture evaporation.

| WARNING: |
| TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES MAY BE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY. THE DEVICE SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES SHALL BE PLACED ON THE APPARATUS. |

| WARNING: |
| CHANGES OR MODIFICATIONS NOT AUTHORIZED BY THE MANUFACTURER CAN INVALIDATE THE COMPLIANCE TO REGULATIONS AND CAUSE THE UNIT TO BE NO MORE SUITABLE TO USE. THE MANUFACTURER REFUSES EVERY RESPONSIBILITY REGARDING DAMAGES TO PEOPLE OR THINGS DUE TO THE USE OF A UNIT WHICH HAS BEEN SUBJECT TO UNAUTHORIZED MODIFICATIONS OR TO MISUSE OR TO MALFUNCTION OF A UNIT WHICH HAS BEEN SUBJECT TO UNAUTHORIZED MODIFICATIONS. |

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Consult the dealer or an experienced radio/TV technician for help.
Any unauthorized changes or modifications to this equipment would void the user’s authority to operate this device. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This unit is compliant with Directive 2011/65/EC (RoHS) Restriction on Hazardous Substances,
and is in conformity with the provisions of the EMC Directive 2004/108/EC. The following harmonized standards were applied:
EN55022:2010/AC:2011 Class B
IEC 61000-4-8:2009, IEC 61000-4-11:2004 )
1999/5/ec - Radio and telecommunication Terminal Equipment Device (R&TTE)
EN 60950-1, EN62311 - For Article 3.1(a): Health and safety of the user
EN 301 489-1, EN 301 489-17 - For Article 3.1(b): Electromagnetic Compatibility
EN 300 328, - EN 301 893 - For Article 3.2: Effective use of spectrum allocated

This product, when no longer usable, when disposed off can’t be treated as generic garbage, but must be disposed of at a collection point for recycling of electrical and electronic equipment, in compliance with the WEEE regulation (Waste of Electrical and Electronic Equipment).
By making sure that this unit is correctly recycled, you will help preventing potential damages to environment and human health, which could be caused by the incorrect treatment of this product as generic garbage. Materials recycling helps conserve natural resources.

We use our best efforts to ensure that information in this document is complete, accurate and current, but otherwise we make no representation concerning the same. We reserve the right to change or modify the information any time, without prior advice. It’s up to the customer to ensure that the manual being consulted is the latest version.

### Trade marks
- ZeroJitter™, GalvanicInfinity™, ENclusiv™, FemtoMaster™ and ZeroResolutionLoss™ are trademarks of exaSound Audio Design.
- Direct Stream Digital (DSD) is a trademark of Sony Corporation.
- Roon and Roon Ready and the Roon Labs logo are trademarks or registered trademarks of Roon Labs or Roon Labs’s licensors.
- The MQA logo is a trade mark of MQA Limited. © MQA Limited 2018
- Designed for Windows Media, Microsoft, HDCD, and the HDCD logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.
- Apple, Mac, AirPlay, iOS and OS X are trademarks of Apple, Inc.
- All other trademarks are the properties of their respective owners.

### Proper Device Placement
Place the device on a stable solid base, far from heat sources. Do not expose the device to direct sunlight. Allow at least 2.5 cm (1") around the device for ventilation. Do not place the device on fabrics, inside enclosed space, or in contact with curtains. Do not place the device on top of power amplifiers or any other equipment that emits heat. Do not expose the unit to smoke, humidity, moisture and water.
**Package Contents**

The following items should be in the box:
- exaSound Sigma Streamer
- Power Supply
- Quick Start Guide
- Two Wi-Fi Antennas (except for models without Wi-Fi support)

**Overview**

The exaSound Sigma Streamer is a high-quality network audio player. It connects your exaSound DAC to your home network and delivers seamless, life-like music experience. It receives digital audio via Gigabit Ethernet, Wi-Fi 802.11ac or from attached USB drives. It outputs digital audio via USB to exaSound DACs.

The exaSound Sigma Streamer is a certified RoonReady player, Signalyst NAA endpoint, UPnP/OpenHome and AirPlay player. The Sigma Streamer is also a UPnP server. It can stream audio from attached USB drives to other UPnP players on your home network.

Tidal, Qobuz and other streaming services are available with Roon, apps like Bubble UPnP and Mconnect, and with AirPlay from iPads and iPhones.

The Sigma Streamer utilizes exaSound's proprietary ZeroJitter™ asynchronous USB streaming technology. exaSound DACs also feature GalvanicInfinity™ USB noise isolation and ZeroResolutionLoss™ hardware volume control. Combined, these three technologies deliver dynamic and natural sound with vanishingly-low jitter, distortion and noise levels.

exaSound Sigma Streamer supports most high-resolution PCM music formats including FLAC, AIFF, WAV, as well as DSD formats including DSF and DFF. Sigma Streamer offers ENclusiv™ High Resolution Audio (HRA) support: PCM sampling rates up to 384kHz at 32bit resolution and DSD up to 12.28 MHz (4X DSD or DSD256).

For most applications the exaSound Sigma Streamer can be used without any configuration right out of the box. Customization and configuration options are managed via a Web browser. Playback is controlled with Roon and various apps for iPad, iPhone, Android devices, Macs and PCs.

exaSound Sigma Streamer is a multi-level device. It can be used in simple and most-advanced network configurations.

With features like remote upgrades and remote support, the Sigma Streamer is future-proof and backed by the exceptional exaSound customer service.
Front and Rear Plates

- Power Button
- Power Light
- Ethernet RJ45 Connector (Home Network)
- USB 2.0 Connector (DAC)
- HDMI Connector (Display)
- Wi-Fi Antenna
- USB 3.0 Connector (Hard Disk)
- Power Adapter Connector
- USB 2.0 Connector (DAC)
- HDMI Connector (Display)
- Ethernet RJ45 Connector (Home Network)
How Would I Use the Sigma Streamer?

**Roon Ready Player**

Roon offers engaging, enjoyable way to browse your music. Via intelligent automatic cloud service library management, Roon delivers metadata for the user’s library and frees the user from the complexities of library management.

The exaSound Sigma Streamer is certified as a RoonReady player. Roon Ready is the highest level of Roon integration and means that Roon technology is customized and embedded both in the player and the DAC for achieving best user experience.

Playback is controlled with the Roon Remote app. Here is how it works:

- Roon is a subscription service. You can find out more about the trial period and about subscription plans on the Roon website - RoonLabs.com.
- You need to connect the Sigma Streamer to your home router with Ethernet cable or with Wi-Fi.
- The Roon playback engine - Roon Core must be installed on a music server like the exaSound Gamma Server or any third-party music server. Roon Core can also be installed on Mac or Windows computer. Your Music server must be connected to your home network and to the Internet.
- Your music files can be stored on your music server or on a NAS - Network Attached Storage.
- Playback is controlled by the Roon Remote App. Roon Remote is available for Apple iPhones, iPads and Android devices. You need to install it on your device from the Apple App Store or from Google Play. Playback can also be controlled from PC or Mac.
- Roon connects to the Roon Service to retrieve rich and well organized information about your music files.
- Roon provides access to the Tidal and Qobuz online streaming services.
- Music files can also be stored on Network Attached Storage (NAS) drive.
- The Roon Remote app can transparently discover and connect to the Sigma Streamer and the Roon servers running on your home network.

You can find more information about Roon here: How Roon works. Questions about Roon can be posted on the Roon Community forum.
**UPnP /OpenHome Player and UPnP Audio Library Server**
The Sigma Streamer supports the UPnP/OpenHome audio streaming standards. It can be used as a player (also called renderer or audio endpoint). When a USB drive is attached to the Sigma Streamer, it also becomes a UPnP audio library server. Playback can be controlled remotely with an app from an iPad, iPhone, Android device, PC or Mac. Popular control apps include Bubble UPnP and Hi-Fi Cast for Android devices and MconnectHD, Kazoo, Lumin and others for iPads and iPhones.

Media files can also be stored on a Network Attached Storage (NAS) devices and PC, Mac or Linux computers. In this configuration scenario you need to use a third-party UPnP audio library server like JRiver, MinimServer, Asset UPnP or Twonky. You will need a fast and stable Gigabit Ethernet network or top-performance 802.11ac wireless router.

There are many other third-party UPnP /OpenHome control apps and library servers. The ones listed here are tested with the Sigma Streamer and support all high-resolution formats and sampling rates up to DSD256 for stereo and multichannel sources.

**Network Audio Adapter for HQPlayer**
The exaSound Sigma Streamer supports Network Audio Adapter (NAA) protocol for audio streaming with HQPlayer. The [Signalyst HQPlayer](https://signalyst.com/) offers advanced upsampling and PCM to DSD conversion algorithms.

**AirPlay Player**
AirPlay can be used to stream content from online services like Spotify, Tidal and Qobuz to the Sigma Streamer. AirPlay support is implemented with ShairPort, an open-source Linux emulator for Airplay. Since this is not an official Airplay implementation, reliability may vary. Note that the AirPlay protocol has some limitations compared to the other network streaming technologies available with the Sigma Streamer. It supports stereo CD-quality audio. DSD and high-sampling rate/high-resolution PCM are not supported.
Quick Start Guide

1. Connect the power adapter to the mains and to the Sigma Streamer.
2. Connect the Sigma Streamer to your Gigabit home network router or switch.
3. Connect the USB cable between the Sigma Streamer and your exaSound DAC. See the Owner's Manual of your DAC for instructions how to connect it to a power amplifier.
4. Press the Sigma Streamer power button, the power indicator light will illuminate.
5. In about 30 seconds to a minute the Sigma Streamer will be available on the home network for use with apps like Roon Remote, HQPayer, MconnectHD, Bubble UPnP, Hi-Fi Cast, Kazoo, and with AirPlay.
6. For most applications the Sigma Streamer is ready to be used right out of the box. Manual configuration options are available via Web User Interface. Start a web browser and navigating to sigma.local.
7. Alternatively, you can access the same settings web page by connecting a keyboard, mouse and HDMI monitor to the Sigma Streamer. This is useful when you don't have access the Sigma Streamer over the network.

Configuring a Wi-Fi Connection to the Home Network (Optional)

1. Attach the Wi-Fi antennas.
2. There are two ways to access the Web User Interface for configuring the Wi-Fi connection:
   - Use a temporary cable connection to connect the Sigma Streamer to your home network. Open a web browser and navigate to sigma.local.
3. From the menu on the Sigma Streamer configuration Web page select Network.
4. Tap the Refresh button to see a list of available Wi-Fi networks.
5. In the list of Wi-Fi Networks, tap one of the double-arrow buttons on the right to select a network.
6. Enter the Wi-Fi password and tap the Connect button.

Using exaSound Sigma Streamer with Roon

1. Open the RoonRemote app and from the menu select Settings.
2. From the list on the left select Audio.
3. Select exaSound Sigma Streamer from the list of RoonReady devices.
   Note: Don't use the Sigma AirPlay connection.

Using exaSound Sigma Streamer with UPnP

1. Use an UPnP app like MconnectHD or Bubble UPnP
2. Configure your UPnP app for use with streaming services like Tidal and Qobuz.
3. Connect a USB drive with music to the Sigma Streamer.
4. Use a Web browser to open the Sigma Streamer Web User Interface.
5. In the menu on the left select Settings.
6. On the UPnP music Library tab tap on the Update button. Library update can take a while.
7. Configure your UPnP app to use the Sigma streamer as playback endpoint, or audio zone. It will appear in the list of available players as sigma
8. Configure your UPnP app to use the Sigma streamer as music library. It will appear in the list of available music libraries as **sigma Library**

**Using exaSound Sigma Streamer with HQPlayer**
The exaSound Sigma Streamer supports Network Audio Adapter (NAA) protocol for advanced upsampling and PCM to DSD conversion applications with the Signalyst HQPlayer. Follow the [Step-by-step guide for configuring the exaSound PlayPoint for use with HQPlayer](#) available on our blog.

**Using exaSound Sigma Streamer with AirPlay**
1. Pull up from the bottom edge of the iPad screen
2. Tap the sound wave icon in the upper right corner of the audio player box.
3. A list of Airplay compatible devices will appear.
4. Select **sigma**. You will see a checkmark next to it.
Changing USB Connections

Always power down the Sigma Streamer before connecting or disconnecting DACs and USB storage devices like hard drives and flash drives.

Only one DAC can be attached to the Sigma Streamer at any time. Making a USB connection with more than one DAC can cause unexpected behavior.

You can attach up to eight USB drives using a powered USB hub.

Zero-Configuration Networking

If you use an Ethernet cable connection, no configuration is required. A Gigabit Ethernet network is required for seamless playback at high sampling rates. To obtain an IP address, DHCP must be enabled on your router. Manual network configuration is available via the Web User Interface.

Web User Interface

Most applications of the Sigma Streamer don't require any manual setup. Custom network configuration and other settings are available via a web page hosted on the Sigma Streamer. To access it, open a web browser and in the navigation bar enter sigma.local.

Computers running Windows 10, Mac computers, mobile phones and tablets will discover automatically your exaSound Sigma Streamer. If your Windows computer is running an older version of Windows or it is unable to find the Sigma Streamer, you need to install Apple Bonjour or compatible zero-configuration networking (zeroconf) service. On Linux computers you need to install Avahi.

If you change the name of the Sigma Streamer the web address will change. For example if you call it exaSound-zone1, the address will be exaSound-zone1.local

Alternatively, you can access the same settings web page by connecting a keyboard, mouse and HDMI monitor to the Sigma Streamer. This is useful when you don't have access the Sigma Streamer over the network.
When you connect to the Sigma Streamer with a Web browser you will see the following page:

**Working with the Menu**

If you are using a device with small screen you can tap on the menu icon to hide the menu. The menu will slide in.

You can toggle between Auto-Hide and Always-On menu modes by tapping on the menu icon.
To have the menu visible at all times tap on the menu icon until you see it overlaid with a right arrow.
Wi-Fi Configuration

1. Navigate your web browser to the Sigma Streamer Web User Interface. By default the address is *sigma.local*. Open the menu and select the *Network* page.

2. Scroll down to the **Available Wi-Fi Networks** tab and tap the **Refresh** button.

3. You will see a list of available Wi-Fi networks.

4. Locate the Wi-Fi network that you need to connect to and tap on the **icon to the right.**
5. Enter the password if you are connecting to a secured network. The Sigma Streamer supports WPA2-PSK (AES) security mode.

At this point if you are using an **Automatic IP** (DHCP), continue with step 7.

6. Select **Manual IP** if you need to enter manually the IP settings.

7. Press **Connect**. It will take a moment for the new settings to be activated. You will see a **Waiting for Connection** message.
8. When the Network page reappears you should see the new IP address.

Note that if you use an IP address to connect your Web browser to the Sigma Streamer, the browser won't be able to reconnect automatically. In this case you will need to manually enter the new Sigma Streamer IP address in the navigation bar of the Web browser.

If you enter incorrect network settings you may be unable to connect to the Sigma Streamer over the network. In this case you can use an alternative method to access the web user interface. Connect a keyboard, mouse and HDMI display to the Sigma Streamer. Use the **Network** page to correct the network settings or to restore the automatic (DHCP) network configuration.
Ethernet Connection  with Manual IP Address

Navigate your web browser to the Sigma Streamer Web Interface. Open the menu and select the Network page.

By default the Sigma Streamer will use the wired network connection - Ethernet.

You can use the Reset button to re-initialize the network connection if the settings on your router are changed or in case the connection is lost.

1. Locate the Ethernet tab and tap on the Edit button.

2. Select Manual IP. Enter proper IP address, subnet mask and gateway. Press apply when you are ready.
3. It will take a moment for the new settings to be activated. You will see a Waiting for Connection message.

![Waiting for connection...](image)

4. When the Network page reappears you should see the new IP address.

| ![Warning Icon] | Note that if you use an IP address to connect your Web browser to the Sigma Streamer, the browser won't be able to reconnect automatically. In this case you will need to manually enter the new Sigma Streamer IP address in the navigation bar of the Web browser. |
| ![Warning Icon] | If you enter incorrect network settings you may be unable to connect to the Sigma Streamer over the network. In this case you can use an alternative method to access the web user interface. Connect a keyboard, mouse and HDMI display to the Sigma Streamer. Use the **Network** page to correct the network settings or to restore the automatic (DHCP) network configuration. |

**Switching Between Wireless and Wired Network Connection**

Only one network connection can be active at any time. Use the **Activate** buttons to switch between wired and wireless network connection. The Sigma Streamer may restart to activate the new network settings. Player apps also may have to be restarted after changing the network connection.
Sharing Attached USB Drives on the Network

File Sharing allows you to have access via the home network to the USB drives attached to the Sigma Streamer. You can use file management apps like Windows Explorer and the Mac OS Finder to copy, move and erase files located on the Sigma Streamer-attached drives.

- Use the File Sharing tab on the Local Storage page to enable or disable file sharing and to set the password for accessing the Sigma Streamer file shares.
- The username is playpoint

The Internal Storage tab displays information about the size of the music libraries stored on the Sigma Streamer internal SSD drive.

Make sure that there always is at least 20% free space on the Sigma Streamer internal SSD drive.

The USB Storage Devices tab on the Local Storage page displays list of attached USB drives.

To safely disconnect an USB drive from the Sigma Streamer:

- Close any applications on remote computers that may be using files on the Sigma Streamer shared drives.
- Tap the Eject icon to the right of the USB drive that you want to disconnect.
- If the USB drive is in use an error message will be displayed at the lower edge of the screen.
- If you are unable to eject the drive and continue to get error messages, power off the Sigma Streamer and then disconnect the USB drive.
Always maintain a backup copy of your music files.

Never disconnect a USB drive during playback.

To avoid accidental data loss we recommend powering down the exaSound Sigma Streamer before disconnecting a USB drive.
**Settings Overview**

Use the Settings tab of the web user interface to configure the Sigma Streamer. The following features will appear if they are available with the attached exaSound DAC:

- Maximum Volume Limit
- DAC Power off Timeout
- Updating the UPnP Music Library
- Changing the Sigma Streamer Device Name (Host Name)
- Displaying the model number, serial number and firmware version
- Checking for firmware updates and installing firmware updates
- Displaying the serial and model numbers of the attached DAC
- Enabling and disabling remote support
Multi-room Configuration and Using a Custom Device Name

Each Sigma Streamer on your home network must have a unique name. Use the **Device Name** tab to assign custom device name (host name) to your Sigma Streamer.

1. From the menu navigate to **Settings**. The current host name will be displayed on the **Device Name** tab.
2. Tap on the Change button and enter a new host name.
3. The Sigma Streamer will shut-down and restart.
4. Remote control apps must be reconfigured to use the new Sigma Streamer host name.

**Example:** if you change the device name to **zone1**, you will need to enter **zone1.local** in the navigation bar of your Web browser to access the Sigma Streamer web user interface.
To access the shared drives from Windows Explorer or Mac Finder you will need to enter \zone1 or smb://zone1/USB

DAC Power Off Timeout

The latest generation exaSound DACs can enter power-saving mode after a period of inactivity. You can use the **DAC Power Off Timeout** tab to set the time-out period.

Moving the slider to the rightmost position disables the DAC automatic power off feature.

Firmware Update

1. Disconnect any USB hard drives or USB sticks from the Sigma Streamer. External USB storage devices may interfere with the update.
2. Make sure that the Sigma Streamer power supply is reliably connected.
3. Make sure the Sigma Streamer is connected to your home network and your Internet connection is stable.
4. Go to the Device Information Tab and tap the **Check for Updates** button.
5. If a new firmware version is available, Tap **Update**.
6. You will see a progress indicator. Don't interrupt the power to the Sigma Streamer during the update or your device may become unusable.
7. The Sigma Streamer may reboot twice during an update.
**Remote Support**

Remote support connections are used by exaSound technical personnel for troubleshooting and collecting error logs and performance data. Remote connection is possible only when it is initiated by the Sigma Streamer owner by pressing the **Start/Stop** button on the **Remote Support** tab.

Establishing the connection may take up to 10 seconds.

Please email the displayed Support ID to the exaSound support representative. It is used to identity your Sigma Streamer on the support network.

**Dashboard for Volume Control and Input Selection**

Here is a view of the Dashboard page used for input selection, volume control and channel trimming for stereo DACs.
The availability of volume control features depend on the attached DAC. The features that are not available with your DAC will not be shown on the Web user interface.

exaSound DACs feature ZeroResolutionLoss™ hardware volume control. Audio data is streamed at 0dB over the USB connection and volume control is implemented by the ES9018/ES9028PRO/ES9038PRO DAC chips. This approach preserves the maximum possible signal to noise ratio. The volume level changes in steps of 0.5 dB.

Volume can be controlled in four ways:
- Remotely from iPad, iPhone or Android device. Compatible apps include Roon Remote, MconnectHD Kazoo, UPnP control points like Bubble UPnP and Hi-Fi Cast.
- From the Sigma Streamer web interface. You can control the master volume and trim the individual channels.
- From the volume control buttons on the DAC front panel.
- With the IR remote control supplied with your exaSound DAC.

The Sigma Streamer implements a unique 4-way volume synchronization. No matter which method is used to change the volume, all volume sliders and the indicators on the DAC display and the Sigma Streamer web interface are kept in sync.

The sound can be muted by touching the **Mute** switch on the **Dashboard** or with the IR remote control supplied with your DAC. Pressing or clicking **Mute** again restores the previous volume level.
Note: AirPlay devices can control the Sigma Streamer volume, however there is no volume synchronization when volume is changed from the Sigma Streamer or the DAC. AirPlay volume control steps are less precise compared to other audio streaming technologies.

Volume Bypass with exaSound DACs
When the volume is set to 0dB, the hardware volume control is turned off and the Sigma Streamer sets the exaSound DAC in Volume Bypass Mode. To activate Volume Bypass:

- On the web interface set the master volume to 0dB.
- Set the left and right volume sliders to 0dB.
- If you are using a multichannel DAC, set all channel sliders to 0dB.

Maximum Volume Limit
Use the Maximum Volume Limit setting to prevent accidental playback at volume levels that are too loud.

Sigma Streamer UPnP Server and Music Library

The exaSound Sigma Streamer has a built-in UPnP server. To use it you need to attach a USB drive with music files. Playback is controlled with apps like MconnectHD, Bubble UPnP, Hi-Fi Cast, Kazoo and others.

Sigma Streamer supports direct connection of one USB 3.0 hard-disk drive (HDD) or solid-state drive (SSD) with current consumption less than 500mA. Up to eight USB drives can be connected to the Sigma Streamer using an external powered USB 3.0 hub.

The UPnP server scans attached USB drives for audio files. Metadata from the discovered files, like album, artist, and cover art are organized in media library which is stored on the internal SSD drive.

When an USB drive is attached for the first time to the Sigma Streamer, or when music files are added or removed, you have to update the UPnP library. From the web user interface, go to Settings page and on the UPnP Music Library tab click the Update button.

Scanning large USB drives may take a while. The UPnP server and the music library are available only when there is at least one USB drive attached to the Sigma Streamer.

Before connecting a USB drive to the Sigma Streamer, make sure to empty the Recycle Bin/Trash Can. The Sigma Streamer may find and include in the media libraries files that are not permanently deleted.

See Sharing Attached USB Drives on the Network for instructions how to copy files over the home network to the Sigma Streamer.
If you need to delete the UPnP music library to release disk space follow these steps:

- Power off the Sigma Streamer
- Detach all USB drives
- Power on the Sigma Streamer
- Navigate to the **Music Library** screen and tap the **Update** button

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
<td>To avoid accidental data loss we recommend powering down the exaSound Sigma Streamer before disconnecting a USB drive.</td>
</tr>
</tbody>
</table>
| ! | Always maintain a backup copy of your music files.  
Never disconnect a USB drive during playback. |
## Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU</strong></td>
<td>1.83GHz, Quad-Core</td>
</tr>
<tr>
<td><strong>RAM</strong></td>
<td>2GB</td>
</tr>
<tr>
<td><strong>SSD for Library Storage</strong></td>
<td>32GB</td>
</tr>
<tr>
<td><strong>USB Audio Interface</strong></td>
<td>exaSound proprietary <strong>ZeroJitter™</strong> USB audio interface with error correction  &lt;br&gt; USB Audio Class 2.0, availability of features is not tested</td>
</tr>
<tr>
<td><strong>HRA (High Resolution Audio)</strong></td>
<td><strong>ENclusiv™</strong> Comprehensive Sampling Rate support</td>
</tr>
<tr>
<td><strong>Sampling Rate Support</strong></td>
<td><strong>PCM</strong>  &lt;br&gt; 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8kHz, 384kHz  &lt;br&gt; 705.6kHz /768 kHz - available for future use  &lt;br&gt; <strong>Native DSD</strong>  &lt;br&gt; DSD 64 Fs: 2.8224MHz; 3.072MHz  &lt;br&gt; DSD 128 Fs: 5.6448MHz; 6.144MHz  &lt;br&gt; DSD 256 Fs: 11.2896MHz; 12.288MHz  &lt;br&gt; DSD 512 Fs: 22.5792MHz, 24.576MHz - available for future use</td>
</tr>
<tr>
<td><strong>Volume Control</strong></td>
<td>Four-way volume synchronization  &lt;br&gt; Volume bypass  &lt;br&gt; Channel trimming  &lt;br&gt; Mute  &lt;br&gt; <strong>ZeroResolutionLoss™</strong> volume control for exaSound DACs provides all-time 0dB Full-Scale streaming</td>
</tr>
<tr>
<td><strong>Digital Volume Control Steps</strong></td>
<td>0.5 dB</td>
</tr>
<tr>
<td><strong>Number of channels</strong></td>
<td>Stereo: 2 channels  &lt;br&gt; Multichannel: up to 8 channels  &lt;br&gt; Channel mode is automatically set to match the number of channels of the connected DAC</td>
</tr>
<tr>
<td><strong>USB Ports</strong></td>
<td>1x USB 3.0 and 1xUSB 2.0</td>
</tr>
<tr>
<td>Specification</td>
<td>Details</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>USB Port Max Current</td>
<td>900mA for USB 3, 500mA for USB 2</td>
</tr>
<tr>
<td>USB Storage Interface</td>
<td>USB 3.0 compatible with USB 2.0 and USB 3.0 HDD and SSD (USB 3.0 drives recommended)</td>
</tr>
<tr>
<td>Ethernet Interface</td>
<td>1 x Realtek 8111G PCI-E Gigabit Ethernet</td>
</tr>
<tr>
<td>Wi-Fi Interface</td>
<td>Intel® Dual Band Wireless-AC 7260</td>
</tr>
<tr>
<td></td>
<td>802.11 ac/n</td>
</tr>
<tr>
<td></td>
<td>2.4 GHz, 5 GHz</td>
</tr>
<tr>
<td></td>
<td>Compliance PCI, CISP, FIPS, FISMA</td>
</tr>
<tr>
<td>IP Setup</td>
<td>IP4, DHCP, manual configuration</td>
</tr>
<tr>
<td>Wi-Fi Setup</td>
<td>Manual configuration via web browser or with attached keyboard, mouse and HDMI monitor</td>
</tr>
<tr>
<td>Wireless Security Mode</td>
<td>WPA-PSK2 AES (Home)</td>
</tr>
<tr>
<td>External Power Supply</td>
<td>90-264V~, 1.5A, 50-60Hz</td>
</tr>
<tr>
<td></td>
<td>Compliance CE, FCC, RoHS, Safety CE,UL/cUL,FCC,TUV/GS</td>
</tr>
<tr>
<td>DC Input</td>
<td>12V, 3.33A</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>&lt;36 W</td>
</tr>
<tr>
<td>Dimensions (W x H x D)</td>
<td>5.2 x 1.4 x 3.3 inches (130 x 34 x 87 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>0.88 lbs (400g)</td>
</tr>
<tr>
<td>Compliance</td>
<td>PCI, CISP, FIPS, FISMA</td>
</tr>
<tr>
<td>Compliance</td>
<td>CE, FCC, RoHS, Safety CE,UL/cUL,FCC,TUV/GS</td>
</tr>
<tr>
<td>Over Current Protection</td>
<td></td>
</tr>
<tr>
<td>Over Temperature Protection</td>
<td></td>
</tr>
<tr>
<td>Over Voltage Protection</td>
<td></td>
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</tbody>
</table>
Open-source Credits

We make extensive use of open source software for the various technologies, architectures, and interfaces that run on the exaSound Sigma Streamer. In fact, we would be unable to offer the device as we envision it, at the current price, without these publically developed projects. The credit roll is available on the Sigma Streamer Web Interface: https://exasound-pp1.local/.

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Warranty service can only be performed by exaSound. Devices which are defective must be shipped pre-paid and insured to exaSound for warranty service in accordance with our Return Policy published at https://www.exasound.com/Store/TermsOfUse.aspx. For products that we verify to be eligible for warranty service, we will pay the shipping cost to return the Device to you via ground shipment.

If in our assessment the defect is covered by our Warranty, the defective item will, at our sole option, be repaired, replaced with the same item or its functional equivalent, or the purchase price will be refunded. exaSound in its sole and absolute discretion shall be the sole determiner of whether a product is in fact defective.

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- Contact exaSound customer service via email at CustomerService@exasound.com with details of the defect claimed, product model, serial number, date and place of the original purchase.
- If it is determined that your product needs service, a Return Merchandise Authorization (RMA) number will be issued to you along with return instructions and address of an exaSound service center.
- Pack the product securely in the original packaging, with your assigned RMA number marked clearly on the outside of the package. Send the package pre-paid and insured to the exaSound to obtain warranty service.
- All returns must comply with our Return Policy displayed at https://www.exasound.com/Store/TermsOfUse.aspx.

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