210 STREAMER USER GUIDE



Important safety instructions

- Read the instructions.
- Keep these instructions.
- · Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Install only in accordance with the manufacturer's instructions.
- Refer all servicing to approved service personnel.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

This apparatus has been designed with Class 1 construction and must be connected to a mains socket outlet with a protective earthing connection (the third grounding pin).

This apparatus uses a single-pole power switch. As a result it is not isolated from AC mains power when switched off at the rear panel. The apparatus may be isolated from mains power either by unplugging the power connector from the rear of the unit, or by unplugging the connector at the opposing end of the power cord or cable from its supply outlet. As a result, either or both of these connectors should remain accessible.

Safety warnings



Caution: to reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.



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 appliance.

Climate

The equipment has been designed for use in moderate climates and in domestic situations.



Only use at an altitude not exceeding 2000m.

Safety warnings

- Do not expose the unit to dripping or splashing.
- Do not place any object filled with liquid, such as a vase, on the unit.
- Do not place naked flame sources, such as lighted candles, on the unit.

To avoid overheating

- Do not position the product in direct sunlight.
- Do not position the product near heat sources, such as a radiator.
- Do not position the product on a soft surface such as a carpet.
- Leave at least 10cm around the product to ensure sufficient ventilation.

To avoid interference

• Do not position the unit near strong electrical or magnetic radiation, such as near a power amplifier.

Radio interference

FCC Warning: This equipment generates and can radiate radio frequency energy and if not installed and used correctly in accordance with our instructions may cause interference to radio communications or radio and television reception. It has been type-tested and complies with the limits set out in Subpart J, Part 15 of FCC rules for a Class B computing device. These limits are intended to provide reasonable protection against such interference in home installations.

CE

EEC: This product has been designed and type-tested to comply with the limits set out in EN55032:2015 and EN55024:2010 + A1:2015.

Copyright and acknowledgements

Sales and service in the UK

Meridian Audio Ltd, Latham Road, Huntingdon, Cambridgeshire, PE29 6YE, England.

Tel (01480) 445678 Fax (01480) 445686

Designed and manufactured in the UK

Meridian Audio Ltd, Latham Road, Huntingdon, Cambridgeshire, PE29 6YE, England.

Visit us on the Web

www.meridian-audio.com

Copyright © 2019 Meridian Audio Ltd. Part no: P88464

Product registration

Register your 210 Streamer at: www.meridian-audio.com/register BoothroydlStuart Meridian, Meridian, and Meridian Digital Theatre are registered trademarks of Meridian Audio I td.

MHR: This product incorporates patented copyright protection technology and intellectual property of Meridian Audio Ltd. This technology is provided for the express purpose of securely containing copyright audio within the Meridian System only. Reverse engineering or circumvention of this protection is strictly prohibited.

Manufactured under licence from MOA Limited. The MQA logo is a trade mark of MOA Limited. © MOA Limited 2018.

Apple is a trademark of Apple Inc., registered in the U.S. and other countries.

Android is a trademark of Google, Inc. Roon is a trademark or registered trademark of Roon Labs LLC. Spotify is a trademark or registered trademark of Spotify USA Inc.



Wi-Fi®, the Wi-Fi logo and the Wi-Fi Protected Setup logo, are registered trademarks of Wi-Fi Alliance.

Wi-Fi Protected Setup[™] and Wi-Fi Alliance logo are trademarks of Wi-Fi Alliance

Bluetooth The Bluetooth® word mark and logos are registered trademarks

owned by Bluetooth SIG, Inc. and any use of such marks by Meridian Audio Limited is under license. Other trademarks and trade names are those of their respective owners.



This product incorporates Spotify® software which is

subject to third party licences found here: https://www.spotify.com/connect/thirdparty-licenses. Use your phone, tablet or computer as a remote control for Spotify®. Go to spotify.com/connect to learn how.

Contents

Introduction	1
Specifications	3
Unpacking	4
Applications	6
Installing and configuring using the Meridian Control app	13
Installing and configuring with default settings	17
Controlling the Meridian 210 Streamer	20
Firmware	21

Introduction

The Meridian 210 Streamer is a high-performance networked audio source providing a full set of network and connectivity protocols to interoperate with smart phones, tablets, computers, and networked servers. It's an ideal solution for streaming music to one or more Meridian DSP loudspeakers, or a digital controller in a Meridian system.

The 210 can output digital audio in industry-standard SPDIF (the default), or MHR (Meridian High Resolution). If the 210 is feeding a Meridian product capable of receiving MHR it should be configured to output MHR; to do this use the **Meridian Control** app; see *Advanced features*, page 13.

The 210 provides a pair of Meridian SpeakerLink outputs to allow you to connect directly to one or two Meridian DSP loudspeakers, or a digital controller such as the Meridian 218.

A SpeakerLink input on the 210 gives flexibility in connecting to an existing system. For example, if the digital controller doesn't have any free SpeakerLink inputs you can free up an input by connecting to the SpeakerLink Input on the 210 instead.

The 210 also provides a digital aux output, to allow it to be connected to earlier Meridian products without a SpeakerLink input. This also allows the 210 to be used with non-Meridian products.

Streaming directly from devices

The Meridian 210 Streamer can receive audio streamed directly from a smart phone, tablet, or computer using popular protocols.

Bluetooth

Bluetooth streams audio directly from a device to the 210, and does not rely on a wireless network access point or an Internet connection. The 210 supports aptX[™] HD over Bluetooth.

Network

The 210 connects to your network via an Ethernet connection, or by using its built-in Wi-Fi capability. To connect via Wi-Fi use the **Meridian Control** app; see *To connect via Wi-Fi*, page 14.

Streaming from Internet music services

The Meridian 210 Streamer also supports Internet streaming music services that use a connected device to start and control playback, but stream the audio over the Internet directly to the 210. For these services an Ethernet or Wi-Fi connection to the Internet is required.

Spotify Connect

The 210 will appear as an output device in the Spotify application, allowing you to control and play music from Spotify's catalogue directly through the 210.

Streaming from a music server

Roon

The Meridian 210 Streamer will stream music from a Roon server over the local network. The 210 will appear as an output device in the Roon application. A Roon paid subscription is required.

UPnP

The 210 supports the Digital Living Network Alliance (DLNA) UPnP (Universal Plug and Play) standard for home network devices, and it is classified as a Digital Media Renderer (DMR), allowing the 210 to play content under instruction from a Digital Media Controller (DMC) with content from a Digital Media Server (DMS).

USB drive

The 210 features a USB input, allowing you to connect a USB flash drive or hard drive. When USB storage is present the 210 will function as a Digital Media Server (DMS) with the contents of the USB made available to networked Digital Media Renderers (DMR).

MQA

The Meridian 210 includes MQA core technology, which unfolds an MQA file once to recover all the direct music-related information. The audio is output from the 210 at a sampling rate of 88.2kHz or 96kHz. The final unfold of the MQA file is carried out if the output of the 210 is fed to another Meridian product which includes MQA renderer technology.

Specifications

Audio outputs

- Two 2-channel Meridian SpeakerLink outputs.
- 2-channel digital coax output (RCA), maximum sampling rate 96kHz.
- Outputs configurable for SPDIF (default) or MHR using the **Meridian Control** app; see *Advanced features*, page 13.

Audio inputs

• One Meridian SpeakerLink input for direct, bit-perfect, passthrough of two-channel digital audio.

Other connections

- USB-A socket for USB storage devices.
- Mini-USB socket for maintenance use.

Audio file formats

AAC, AIFF, MP3, FLAC, WAV, WMA, Apple Lossless, OGG, Monkey's, and MQA.

UPnP

• DLNA 1.5 & UPnP AV 1.0.

Network

- 10/100 Ethernet
- IEEE 802.11 a/b/g/n 2.4 & 5GHz dual band WiFi
- Security: 64/128 WEP/WPA/WPA2/TKIP/AES

Indicators

- Front panel indicators for Standby, Network, Spotify Connect, Bluetooth, SpeakerLink In, and MQA status.
- Rear panel indicator for power.

Physical

- Dimensions: 204mm x 42mm x 150mm (8.0" x 1.65" x 5.9") (W x H x D without feet or connectors).
- Weight: 0.66kg (1.46lb).

Power

- 12W max.
- 100-240V AC, 50/60 Hz.

Unpacking

The 210 is supplied with:

- A power cord.
- Four self-adhesive feet.
- Ouick Start Guide

Please contact your retailer if the power cord has the wrong plug for your territory.

The feet can be fixed to the base of the product, which is printed with circles as a guide. The feet will not be needed if you are mounting the unit on a rack tray; see *Installing 210 Streamers in a rack tray*, page 12.

Back panel

The following diagram gives details of the back panel connections:



Front-panel indicators

The status of the 210 is shown by the four indicators on the front panel:

Indicator	Description
Net	Slow flash blue: Starting up Steady blue: Standby Slow flash white: Network starting Steady white: Network ready Intermittent flash white: Network has no IP address. Green: Spotify Connect
Bluetooth	Flashing blue/white: Waiting to pair Constant white: Connected Flashing blue: No connected devices.
SL	White: SpeakerLink source selected.
MQA	Green: MQA Authenticated Blue: MQA Studio Magenta: MQA Core

Audio outputs

Use this output	To connect to this
SpeakerLink Out Master and Slave	One or two Meridian DSP loudspeakers with SpeakerLink inputs, or a Meridian controller with a SpeakerLink input, using CAT5 or SpeakerLink cables.
Digital Aux Out	One or two Meridian DSP loudspeakers without SpeakerLink inputs, the digital input of a Meridian controller, or the digital input of a digital preamplifier, using a digital coax lead.

Audio inputs

Use this input	To connect to this
SpeakerLink In (CD)	A Meridian System.

Communications connections

Use this connection	To connect to this
Network	An Ethernet network, using a CAT5 Ethernet cable.
USB	A USB flash drive or hard drive.

Applications

Minimal system



This is a simple, standalone system streaming audio from a Meridian 210 Streamer to one or two M6 DSP Loudspeakers, using a smart phone or tablet to control the music.

- Connect each loudspeaker's SpeakerLink input to a SpeakerLink output on the 210, using CAT5 or SpeakerLink cables.
- Connect the 210 to the LAN using a CAT5 cable.



Meridian DSP loudspeakers and a Meridian 218 Zone Controller

This is a larger system connecting the Meridian 210 Streamer to a Meridian 218 Zone Controller.

- Connect the 210 Master SpeakerLink output to the SpeakerLink input on the 218, using a CAT5 or SpeakerLink cable.
- Connect the 218 and 210 to the LAN using CAT5 cables.
- Optionally connect additional digital and analogue sources to the 218 analogue, digital, and optical inputs.
- Optionally connect a USB flash drive or hard drive to the 210 USB Input, to use the 210 as a UPnP music server.
- The 210 appears to the Meridian system as the SLS source, so configure the 218 to select the SpeakerLink input for the SLS source, using the 218 web interface.

The system can be controlled via a Meridian remote control, the **Meridian IP Control** app for iOS, or the **Meridian Control** app for iOS/Android.

Passive loudspeakers and a Meridian 251 Powered Zone Controller



The 210 Streamer can be connected to a Meridian 251 Powered Zone Controller to create a larger system with two passive loudspeakers, an optional active subwoofer, local analogue and digital sources, and more control options.

- Connect the 210 Master SpeakerLink output to the SpeakerLink input on the 251, using a CAT5 or SpeakerLink cable.
- Connect the 251 and 210 to the LAN using CAT5 cables.
- Connect the loudspeaker outputs to the main left and right loudspeakers, using loudspeaker cables.
- Optionally connect the analogue output to an analogue subwoofer, using a phono cable.
- Optionally connect an analogue source using 50 Ω RCA cables, an optical source using an optical cable, and a digital source using a 75 Ω RCA cable.
- The 210 appears to the Meridian system as the SLS source, so configure the 251 to select the SpeakerLink input for the SLS source, using the 251 web interface.

The system can be controlled via a Meridian remote control, the **Meridian IP Control** app for iOS, or the **Meridian Control** app for iOS/Android; for more information see the *251 Powered Zone Controller User Guide*.



The Digital Aux Out connector allows you to connect the Meridian 210 Streamer to a product that doesn't provide a SpeakerLink input, such as an older Merdian Digital Controller or third-party digital preamplifier.

- Connect the Digital Aux Out from the 210 to the digital input of the digital preamplifier, using a digital coax cable.
- Connect the 210 to the LAN using a CAT5 cable.

You can optionally connect a Meridian source with a SpeakerLink output to the SpeakerLink input of the 210; it can be selected as the CD source.

Installing in a rack tray

A 210 Rack Tray is available separately, to allow two 210s to be mounted in a standard 19" rack. The Rack Tray is supplied with the necessary screws.

The MAC address of each 210 is provided on the base of the unit, and we recommend that this is recorded on the tray as it is installed so that it can be identified in future. Adhesive labels are supplied with each Rack Tray for this purpose.

Note that if only one 210 is being installed in a tray then the open side of the fascia can be blanked by one of the knockouts included in the tray. Remove the knock-out from the tray and bend the two longer tabs to 90 degrees. Affix the two self-adhesive dots and slide the shorter tabs down between the fascia and the tray, resting the longer tabs on the top surface of the tray. Press the knock-out firmly against the back of the fascia to secure.



Installing and configuring using the Meridian Control app

This chapter describes the recommended way of installing and configuring the Meridian 210 Streamer, using the **Meridian Control** app running on an iOS or Android device. This allows you to access all the features of the product, and control streaming and playback.

The 210 can also be used with its default settings without requiring the Meridian Control app; for more information see the next chapter, *Installing and configuring with default settings*, page 17.

Advanced features

The Meridian Control app allows you to:

- Connect to the network via Wi-Fi
- Configure the network connection, such as changing from DHCP to static IP address
- Enable MHR (Meridian High Resolution) on outputs
- Change the device name (as it appears in some streaming apps)
- Manage Bluetooth devices
- Configure Sources, for integration within a Meridian system
- Set Volume control options, including the System Start Volume, Bluetooth Start Volume, and Bluetooth Volume Limit
- Check the Firmware version and install firmware updates
- Restore the factory settings

Downloading the Meridian Control app

The app is available for download on iOS devices from the Apple App Store and on Android devices from the Google Play Store.

In either case search for Meridian to find the app or scan the $\ensuremath{\mathsf{QR}}$ code shown here:



Installing the 210 using the Meridian Control app

When the app is run for the first time, it walks you through the installation process. Appropriate instructions are given according to a few simple set-up options selected within the app.

If changes are required later on, all configuration settings can be accessed from the app at any time.

In addition, the app provides access to a number of advanced features and can be used to control the product; see *Controlling the Meridian 210 Streamer*, page 20.

Connecting loudspeakers

If you don't have a controller in your system:

• Connect your Meridian DSP loudspeaker(s) to the SpeakerLink outputs using CAT5 or Meridian SpeakerLink cables.

If your system includes a recent Meridian controller, such as the 218:

• Connect the Master SpeakerLink output to a SpeakerLink input on your controller.

If your controller's SpeakerLink inputs are already in use for another source:

• Connect the source to the SpeakerLink input on the 210 to free up the SpeakerLink input on the controller, and then connect the Master SpeakerLink output to this.

Connecting to the network

To connect via Wi-Fi

- Download the **Meridian Control** app; see *Downloading the Meridian Control app*, page 13.
- Power up the 210.
- Run the Meridian Control app.
- Select WI-FI and follow the instructions on the app

To connect via an Ethernet cable

- Connect a standard network cable between the Network socket on the 210 and your network.
- Power up the 210.

The 210 network interface will be configured automatically using DHCP. Note that a wired connection takes precedence automatically over any Wi-Fi network connection. As soon as the 210 is successfully connected to a wired network the Wi-Fi connection will not be used.

Streaming audio

You can stream audio to the 210 via Bluetooth, Spotify Connect, or Roon.

When a source of streaming is activated, the 210 will automatically switch to the new stream, disconnecting any stream already playing.

To stream via a Bluetooth connection

Bluetooth streaming does not require the 210 to be connected to the Internet or a network. The Bluetooth indicator on the front panel illuminates when streaming via a Bluetooth connection.

The method for setting up Bluetooth connections differs slightly between iOS and Android devices.

Although the **Meridian Control** app uses a Bluetooth connection to communicate with the 210, to stream audio via Bluetooth you need to make a second Bluetooth connection using the **Pairing** button on the back of the 210. The procedure differes slightly depending on whether you are using iOS or Android:

iOS devices

• Press the **Pairing** button on the 210

A second entry for the 210 will as appear as available for

pairing in OTHER DEVICES.

• Select this second entry in order to create a connection for streaming audio.

Once connected, the audio connection will be identified by a blue information icon.

Android devices

• Press the Pairing button on the 210

The 210 will appear as available for connection.

• Select this connection to establish an audio connection.

To stream via Spotify Connect, or Roon

The 210 should be listed as an available output device in Spotify or Roon running on a phone, tablet, or computer.

• Select the 210 to play music to the 210.

You can control the volume and pause the music from your device.

When streaming via the network the **Network** indicator will be illuminated on the front panel.

Spotify Connect streams are controlled by the device, but transferred to the 210 directly from the music service over the Internet. It is therefore necessary to have an Internet connection to stream from Spotify Connect.

Roon streams are controlled and played on the Roon server, and streamed to the 210 over the local network. It is therefore not necessary to have an Internet connection to play from a Roon server.

To stream from a UPnP music server

If a UPnP music server is accessible on the network, the 210 can stream music from the music server using an appropriate control application such as Bubble UPnP or Audirvana. The 210 can itself be used to host a UPnP music server; see *Connecting a music server* below.

Connecting a SpeakerLink source

A Meridian SpeakerLink source product can be connected to the 210 SpeakerLink input. By default it will appear as the CD source.

When the SpeakerLink source is selected via the Meridian system the **SL** indicator will be illuminated on the front panel.

Connecting a music server

You can use the Meridian 210 Streamer as a UPnP music server by connecting a USB flash drive or hard drive containing music files to the USB port on the 210.

Installing and configuring with default settings

This chapter describes how to use the 210 straight out of the box without changing its factory default settings. This does not require the **Meridian Control** app.

You will be restricted to the following options:

- The network connection must be via a wired Ethernet cable; Wi-Fi is not available.
- DHCP IP addressing is used;, static IP is not available.
- MHR (Meridian High Resolution) is not available.
- The 210 will appear with its default device name within Spotify Connect.
- Bluetooth connections must be made on the phone, tablet or computer in the standard way for that device.
- Meridian source configuration cannot be changed.
- Volume control behaviour cannot be customised.
- Firmware cannot be version-checked or updated.

Connecting loudspeakers

If you don't have a controller in your system:

• Connect your Meridian DSP loudspeaker(s) to the SpeakerLink outputs using CAT5 or Meridian SpeakerLink cables.

If your system includes a recent Meridian controller, such as the 218:

• Connect the Master SpeakerLink output to a SpeakerLink input on your controller.

If your controller's SpeakerLink inputs are already in use for another source:

• Connect the source to the SpeakerLink input on the 210 to free up the SpeakerLink input on the controller, and then connect the Master SpeakerLink output to this.

Connecting to the network

With default settings the only option is to connect via an Ethernet cable, using DHCP addressing.

- Connect a standard network cable between the Network socket on the 210 and your network.
- Power up the 210.

The 210 network interface will be configured automatically using DHCP.

Streaming audio

You can stream audio to the 210 via Bluetooth, Spotify Connect, or Roon.

When a source of streaming is activated, the 210 will automatically switch to the new stream, disconnecting any stream already playing.

To stream via a Bluetooth connection

• Press the **Pairing** button on the back-panel to put the 210 into Pairing mode.

On iOS devices the 210 will be seen as available on the Bluetooth settings page of the device.

• Select the connection to establish an audio connection.

On Android devices the Bluetooth settings page will show two differing connections for the 210. One of these relates to streaming audio, the other relates to the app. The connection for the app will be displayed in the form of "210" followed by a three-digit number. Ignore this connection and select the other in order to establish the audio connection.

To stream via Spotify Connect, or Roon

The 210 should be listed as an available output device in Spotify or Roon running on a phone, tablet, or computer.

• Select the 210 to play music to the 210.

You can control the volume and pause the music from your device.

When streaming via the network the **Network** indicator will be illuminated on the front panel.

Spotify Connect streams are controlled by the device, but transferred to the 210 directly from the music service over the Internet. It is therefore necessary to have an Internet connection to stream from Spotify Connect.

Roon streams are controlled and played on the Roon server, and streamed to the 210 over the local network. It is therefore not necessary to have an Internet connection to play from a Roon server.

To stream from a UPnP music server

If a UPnP music server is accessible on the network, the 210 can stream music from the music server using an appropriate control application such as Bubble UPnP or Audirvana. The 210 can itself be used to host a UPnP music server; see *Connecting a music server* below.

Connecting a SpeakerLink source

A Meridian SpeakerLink source product can be connected to the 210 SpeakerLink input. By default it will appear as the CD

source.

When the SpeakerLink source is selected via the Meridian system the **SL** indicator will be illuminated on the front panel.

Connecting a music server

You can use the Meridian 210 Streamer as a UPnP music server by connecting a USB flash drive or hard drive containing music files to the USB port on the 210.

Controlling the Meridian 210 Streamer

The only hardware control fitted to the 210 is the Bluetooth Pairing Button on the rear-panel of the product. This is used for pairing the 210 with Bluetooth devices.

Despite the lack of physical controls on the product itself, when it is used with other Meridian equipment, the 210 can play an important role in the handling and execution of various control commands. One of the prime functions of the 210 is to act as a link between networked audio apps and the Meridian system. In such situations, commands used within an app running on a phone, tablet or computer are interpreted by the 210 so that they will control the Meridian equipment. Conversely, certain control commands used on the Meridian equipment are interpreted by the 210 and passed to apps running on connected devices.

This means that a Meridian system which includes a 210 can be used without necessarily requiring any direct control of the 210 itself. Volume can be adjusted, play queues can be navigated and sources can be selected using a combination of the controls on the devices running the apps and the controls on the other Meridian equipment.

However, the **Meridian Control** app provides an additional method of controlling the system. The **Meridian Control** app

runs on iOS and Android devices so it can be used on the same device as that which is playing the audio. Source selection, volume and On/Standby controls are at your fingertips and the app is intuitive in use as it displays the status of these settings using information fed back from the system. This is part of the sophisticated integration offered by the 210 which means that even when volume commands are received from multiple sources, the level of sound remains predictable without jumping unexpectedly high or low.

Control commands available from the Meridian Control app.

- Volume up, volume down, volume mute
- Play, Stop, Pause, Next track, Previous track
- On, off (Standby)
- Meridian source selection

Firmware

The firmware on the 210 can be checked and updated as necessary using the Meridian **Control** app. For details of how to get the app, see *Advanced features*, page 13.

- Open the app and connect to the 210 Streamer.
- Reveal the menu options by tapping on the icon in the top left-hand corner of the screen.
- Select the **Advanced** option.
- Select **FIRMWARE UPDATE** to reveal the two options available:

Either:

 Select Enable Auto-Update to allow updates to be downloaded and installed automatically to the 210 as they are released.

Or:

• Tap **Check For Updates** to find whether an update is available.

If it is, you will be offered the option to install the update manually.

While the firmware update is taking place the four front-panel

indicators will flash in turn. The update process may take up to 60 seconds.

When the update is complete the unit will reboot. During rebooting the front-panel Net indicator will flash blue, and rebooting takes approximately 30 seconds.