EXN100 Network Player

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Model: CA0940

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EXN100 Network Player

Last updated: August 16, 2023 04:23. Revision #7018
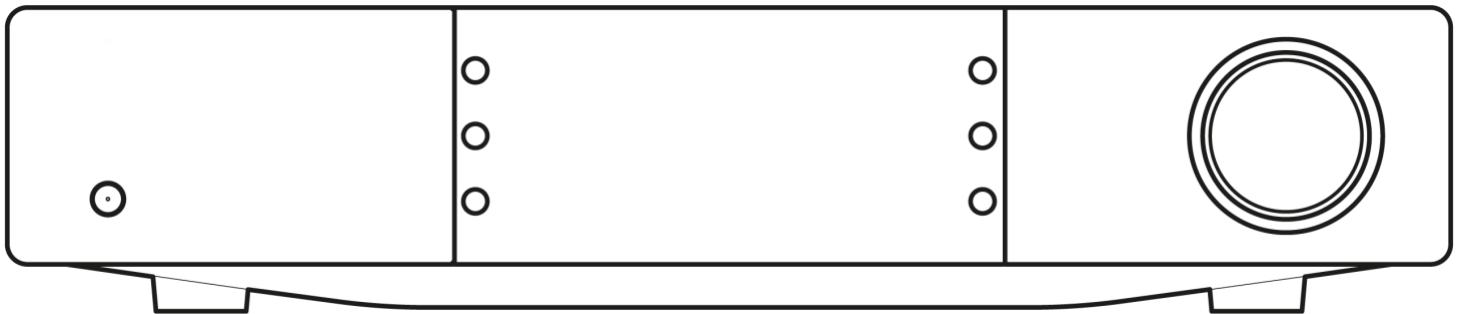
Users Manual

Introduction

Last updated: June 27, 2023 10:02. Revision #7014

This guide is designed to make installing and using this product as easy as possible. Information in this document has been carefully checked for accuracy at the time of publishing; however, Cambridge Audio's policy is one of continuous improvement, therefore design and specifications are subject to change without prior notice.

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The Spotify software is subject to third party licenses found here: www.spotify.com/connect/third-party-licenses.

This product support AirPlay works with iPhone, iPad, and iPod touch, or Mac and PC with iTunes.

Use of the Works with Apple AirPlay badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards.

To use AirPlay with EXN100, the latest version of iOS, iPadOS, or macOS is recommended.

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What's included with the EXN100?

Last updated: August 3, 2023 04:43. Revision #7169
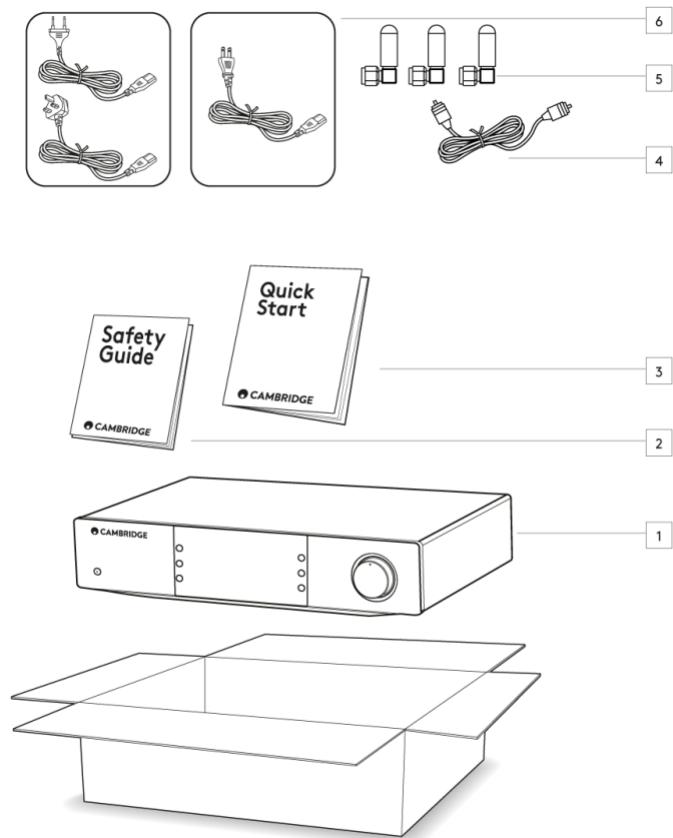
1) EXN100 Network Player

2) Safety Guide

3) Quick Start Guide

4) Control Bus Cable

5) Antenna

6) Power Cable

Front Panel

Last updated: Oct 12, 2023 03:28. Revision #7013
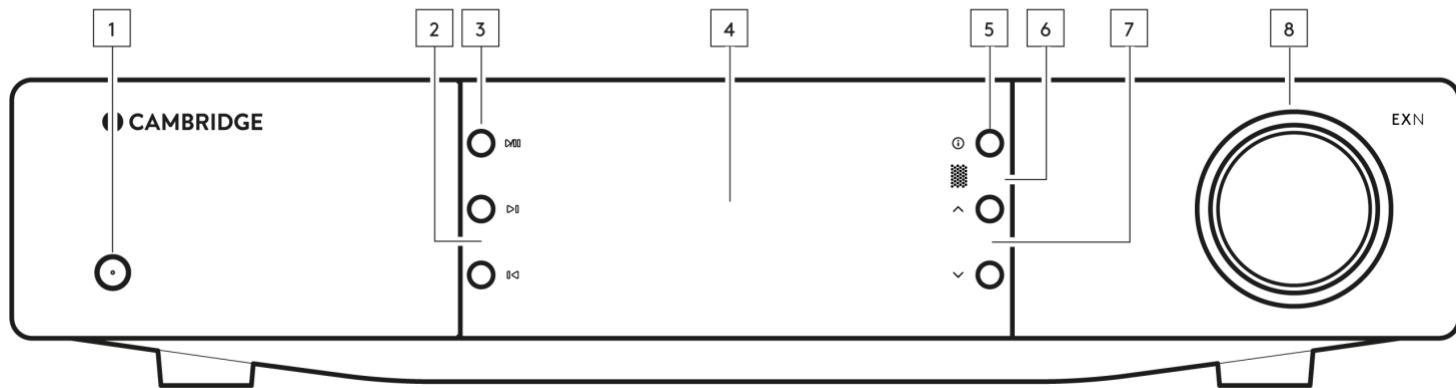
1. Standby/On

Switches the unit between Standby Mode (indicated by dim power LED) and On (indicated by bright power LED). Standby Mode is a low power mode (0.5 Watts) – This can only be achieved when using Eco mode. The unit should be left in Standby Mode when not in use.

2. Skip

Skip to next or previous track during playback.

3. Play/Pause

Play or Pause current track.

4. Display

5. Info

During playback, pressing this button will cycle through 'Now Playing' screens. Press and hold to display the product info.

6. Infrared Sensor

IR sensor that receives IR commands from the remote control.

7. Source

Press to change the input sources.

8. Volume Dial (Rotary Dial)

Rotate to increase or decreases the volume.
Note: you can enable Volume dial in the previous amplifier setting of the StreamMagic APP

Display
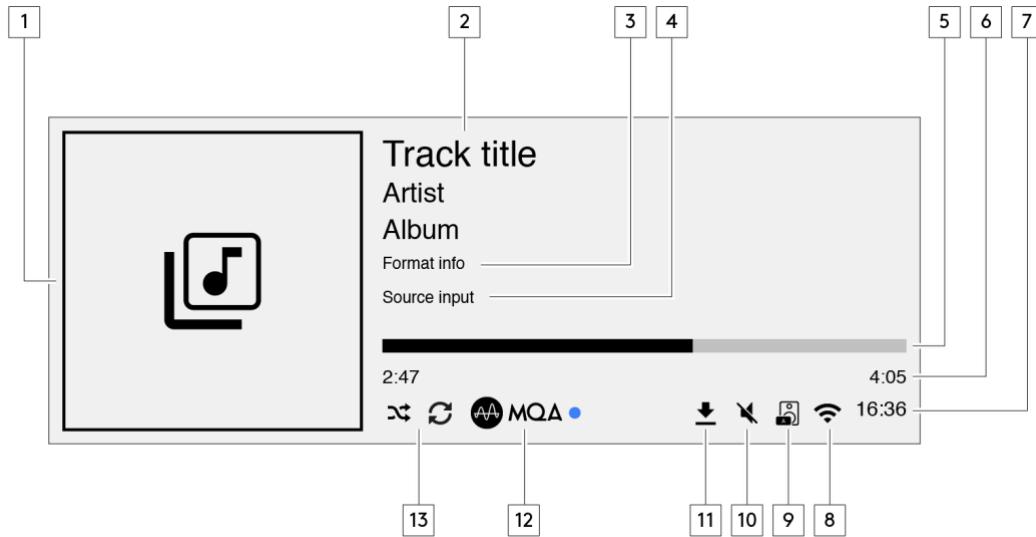
1. Album/Source artwork

Displays the album artwork. Alternatively, if no albums are available this will display the source input icon.

2. Track title, artist and album
For Internet Radio, this will display the radio station name and the current playback.

3. Format info
Displays the streaming sample rate. For Internet Radio, this will display the bitrate the station is streaming.

4. Source input
Displays the currently selected source input.

5. Progress bar
When available, this will display the current track progression during playback.

6. Track time
When available, this will display the elapsed track time during playback.

7. Clock

8. Network connection
Displays the current network connection.

9. Speaker output
Displays the currently selected speaker output.

10. Mute volume
Displays when the network streamer is muted.

11. Firmware update
This indicates when new firmware is available. Press the 'Info' button on the front panel or use the StreamMagic app to update the network streamer's firmware.

12. MQA indicator
See the MQA section for more details.

13. Shuffle, Repeat and Repeat +1
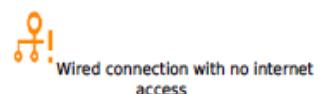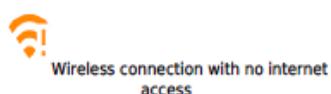
Rear Panel Connections

Last updated: Oct 12, 2023 02:51. Revision #7012
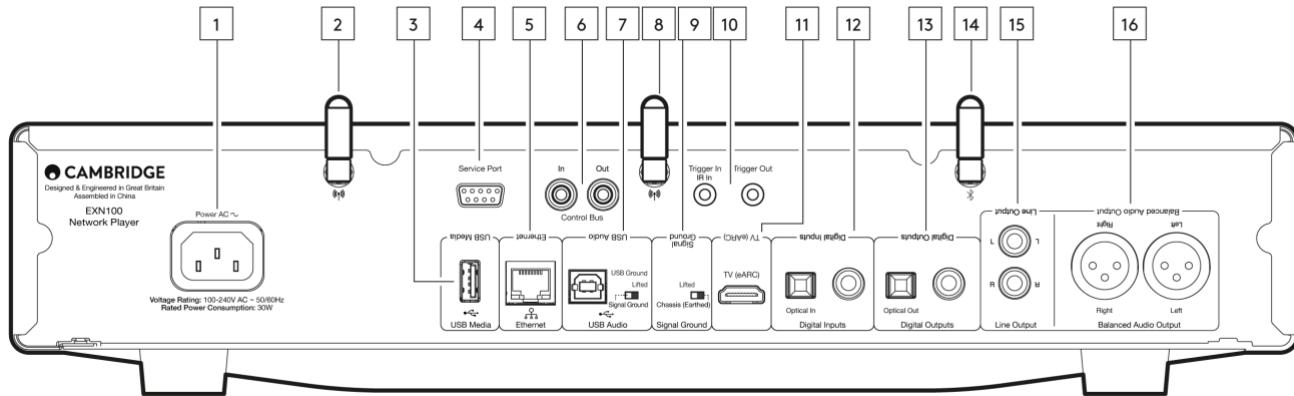
1. AC Power Socket
Once you have completed all connections to the amplifier, plug the AC power cable into an appropriate mains socket then switch on.

2. WiFi antenna

3. USB Media
connection for USB HD/flash disk.
The USB ports are not intended for connection to Apple mobile devices, no functionality, charging or otherwise, is supported.

4. Service Port (RS232)
For servicing use only. Do not connect anything here as it may result in damage.

5. Ethernet
Use a wired connection for seamless playback of high-resolution 352.8kHz, 384kHz, and DSD 256.

6. Control Bus
RCA sockets used to send and receive power and volume commands from other connected CX Series products. For more information on the Control Bus, see Control Bus section.

7. USB Audio In
For connecting to PC/Mac computers.
Note: For Class 2 USB audio, Windows-based PCs require a Cambridge Audio USB driver to be installed before connection.

8. WiFi antenna

9. Signal Ground
Ground switch: Chassis(Earthed) / lifted position.

10. Trigger Out
Use a link wire between the EXN100 and a product that has a trigger input. This will synchronise the power state of both products when powering the EXN100 on/standby.
Trigger In/IR In
Trigger In – Use a link wire between a product that has a trigger output and the EXN100. This will synchronise the power state of the EXN100 with the controlling unit.   IR In – Receives modulated IR commands from an IR repeater or custom install systems.

11. TV eARC (Audio return channel (ARC))
A connection from a TV that supports ARC function.

12. Digital Inputs
TOSLINK and S/P DIF coaxial digital inputs.

Coaxial – Use a high quality 75 ohm digital RCA Phono interconnect cable (This is different from an analogue audio phono interconnect). This input is suitable for 16-24 bit content up to 192kHz.

TOSLINK Optical – Use a high quality TOSLINK fibre optic interconnect cable designed specifically for audio use. This input is suitable for 16-24 bit content up to 96kHz (TOSLINK is not recommended at 192kHz sampling rates).

Note: To obtain the best results from your system we recommend using only high-quality Cambridge Audio interconnects. This will ensure that you hear your system as we designed it. Please ask your dealer for details.

13. **Digital Outputs**
TOSLINK and S/P DIF coaxial digital outputs.

14. **Bluetooth antenna**
Ensure these antennas are connected securely before use.

15. **Line Output**
Line Output (fixed or variable) used to provide a signal to another amplifier or a recording device.

16. **Balanced Audio Output**
For use with balanced XLR connections. The balanced connection is the higher quality option and can reject noise and interference in the cable when used with other equipment that supports this function.

Note: XLR connectors should be wired as follows: Pin 1: Ground, Pin 2: Hot (in-phase) and Pin 3: Cold (phase-inverted).

Getting Connected

Last updated: Oct 16, 2023 01:16. Revision #7010

Basic Analogue Connections

Important Note: Switch the power off before making any connections.

There are two analogue connection options for the EXN100.

1. Line Output Connection (RCA)
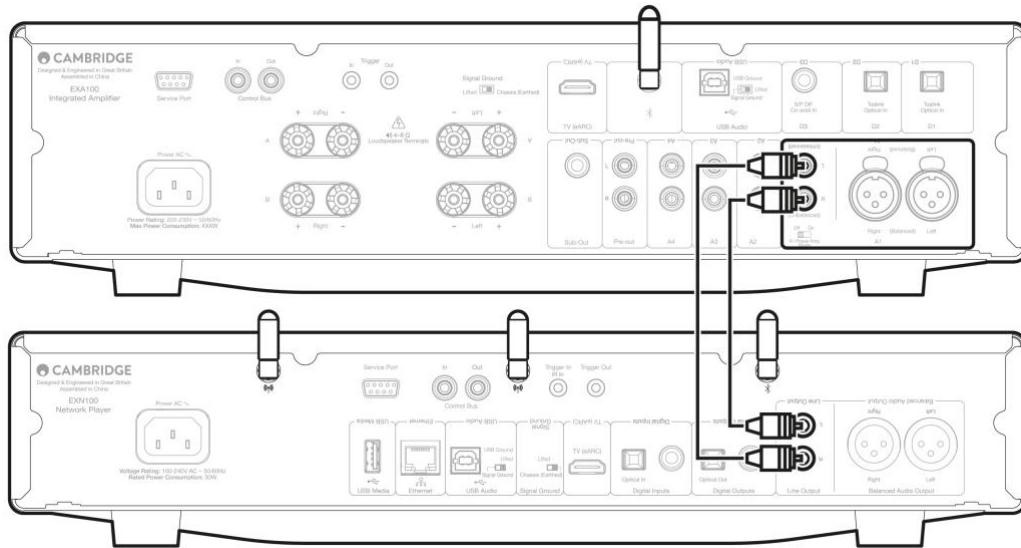
2. Balanced Audio Connection (XLR)
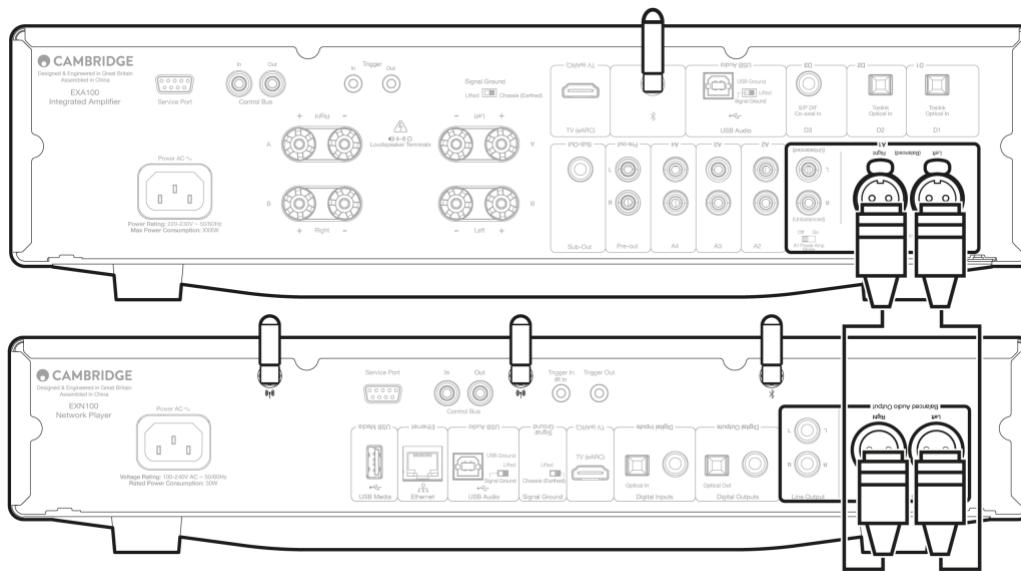
Basic Digital Connections

There are two digital connection options for the EXN100.

Note: If using either of the digital outputs of the EXN100, the digital signal will bypass the DAC in EXN100 and will instead be processed by the unit connected to the digital output, E.g., EXA100

1. Digital Coaxial Output – Digital Coaxial connections are commonly used with CD players and amplifiers and is recommended for use as it has higher bandwidth.
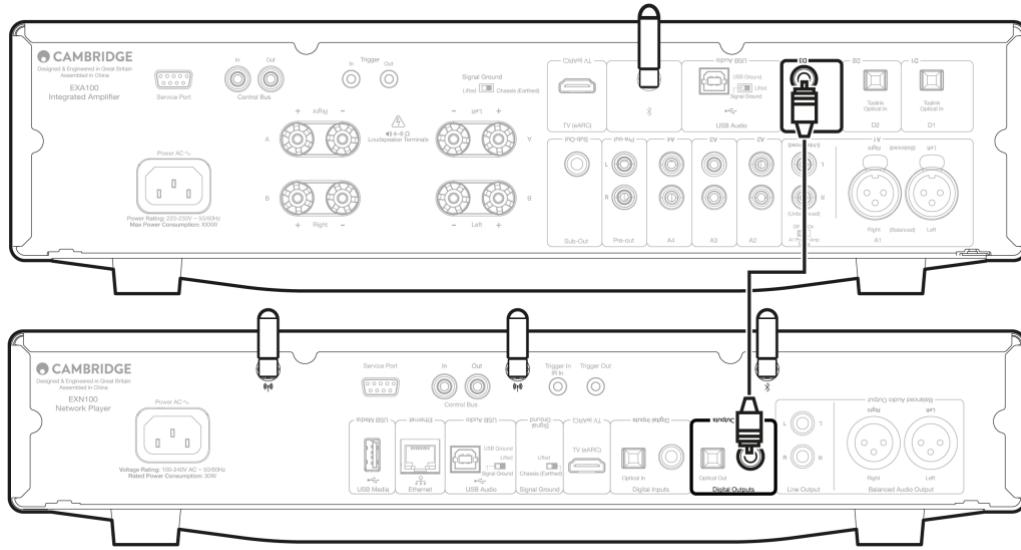
2. **TOSLINK Optical Output** – Whilst having lower bandwidth, TOSLINK Optical connections are commonly found on televisions, DVD players and A/V units.
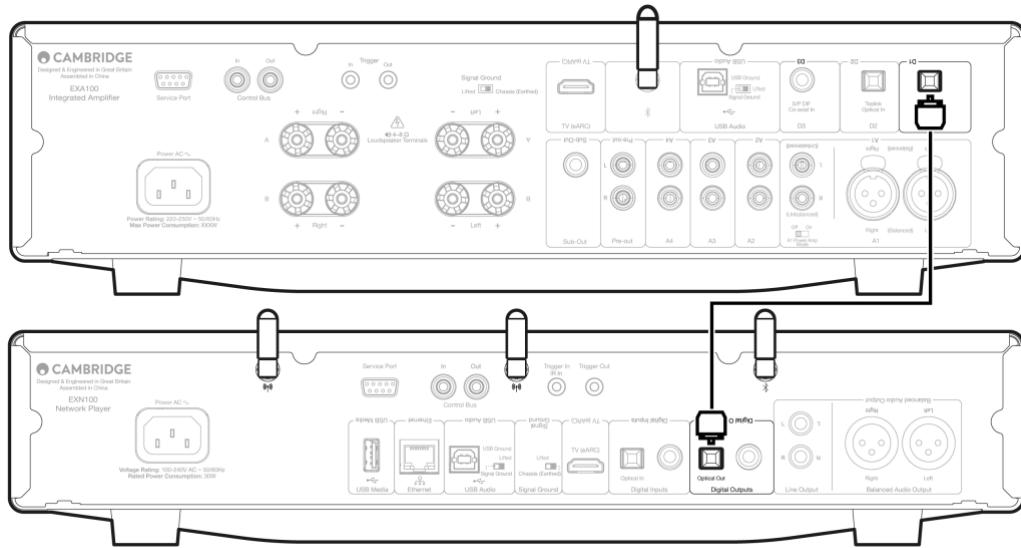
Control Bus

The Control Bus lets you control your other EX series units. See the following diagrams when connecting the EXN100 using the provided Control Bus cable.

Another added feature with this Control Bus is the use of the StreamMagic app. You can use the StreamMagic app to control other EX series units via the EXN100.

EXN100 with EXA (via StreamMagic app)

When using the app to turn the EXN100 on/off, this will also turn the EXA on/off. The app can also be used to control the volume of the EXA. Connect the EXN100 Control Bus Out to EXA Control Bus In.
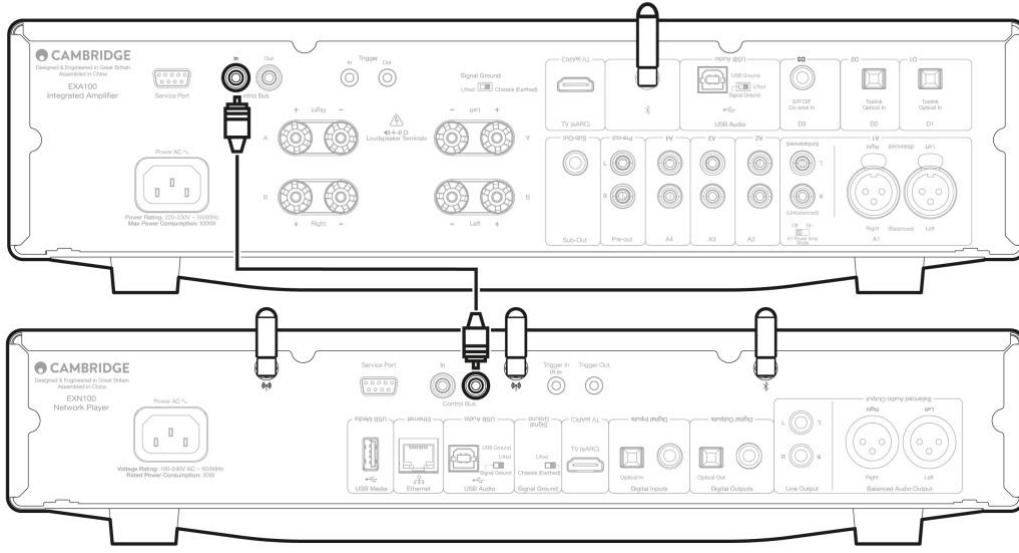
EXA with EXN100

Note: Without using the StreamMagic app to control the EXA.

When turning the EXA on/off, this will also turn the EXN100 on/off. Connect the EXA Control Bus Out to EXN100 Control Bus In.
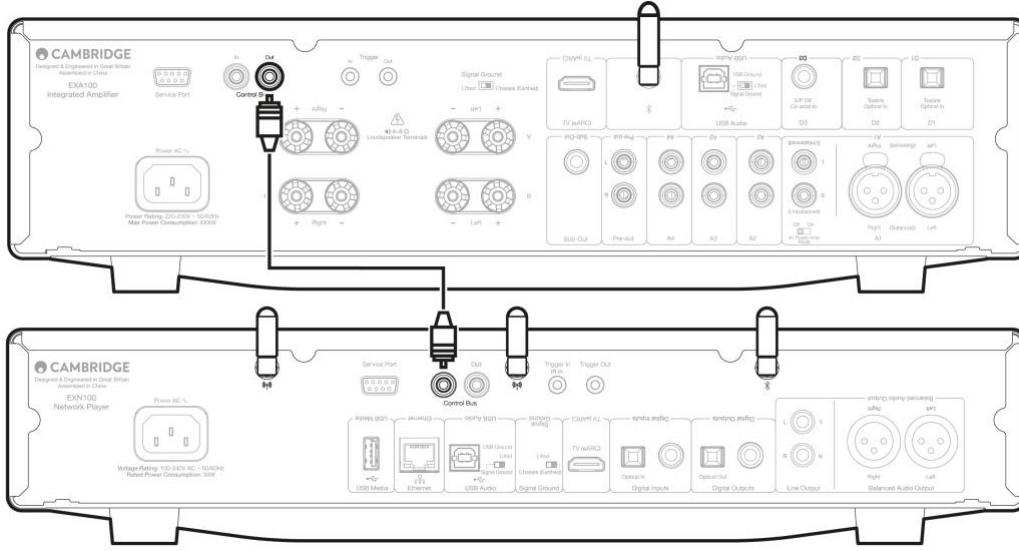
EXA with EXN100 and CXC

When turning the EXN on/off, this will turn the EXA and CXC on/off.

With all three devices, connect the EXN100 Control Bus out to EXA Control Bus in. Then connect the EXA Control Bus out to CXC Control Bus in.

Note: Do not loop back from the CXC Control Bus out to the EXN100 Control Bus in.

Control Bus will also need to be enabled and set to Amplifier within the EXN device settings in the StreamMagic app once the app has been connected to the EXN100.
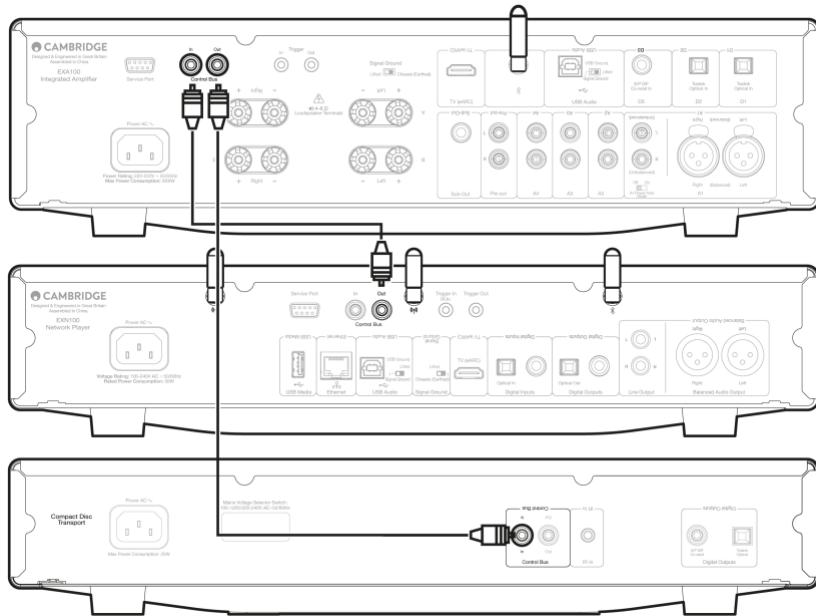
Note: If a device with APD enabled automatically switches off after the selected period of inactivity, this will also switch off the other connected devices.

Network connections

Last updated: Oct 12, 2023 01:17. Revision #7009

Important Note: It is vitally important that your EXN100 remains connected to a Wi-Fi network as often as possible. This will ensure that the unit is regularly updated to meet essential security protocols, third party compatibility and the latest software requirements.

Failure to maintain your device with regular firmware updates as provided by Cambridge Audio will void the product warranty and is likely to cause major issues to the unit in time. Please ensure that your unit is updated to the most current firmware version. Information on the latest firmware version for the EXN100 can be found here.

Note: The EXN100 is not compatible with captive portal networks. The EXN100 can on 2.4GHz/5GHz WiFi. Where possible, avoid the use of powerline adapters, Wi-Fi signal boosters/extenders as these can disrupt the reliability of the network connection.

Connecting to a Wired Network

1. Connect a network cable (Category 5/5E straight-through Ethernet cable) between the EXN100 and your router.

2. Your EXN100 will now automatically connect to the network.
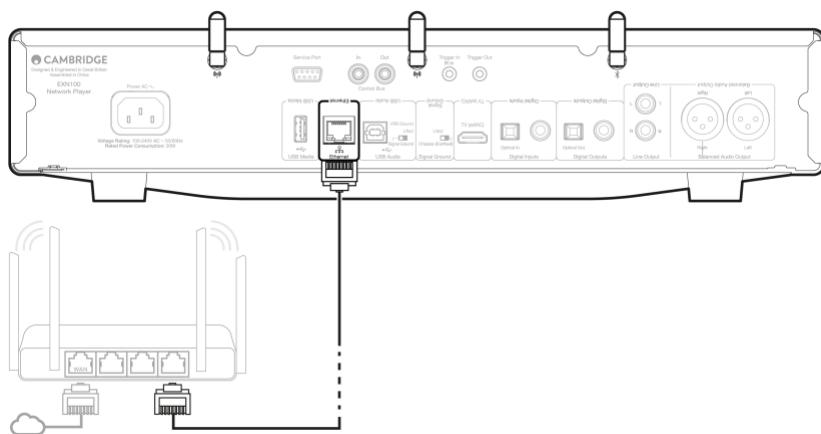
Connecting to a Wireless Network

Important note: Ensure these antennas are connected securely before use.

iOS:

1. Ensure that your EXN100 is in range of your wireless router, and then power on your unit.

2. Go to the Wi-Fi settings on your iOS device and under 'SETUP NEW AIRPLAY SPEAKER' select 'EXN100'.

3. Once connected, to complete unit setup download and install the StreamMagic app from the Apple App store.

Android:

1. Ensure that your EXN is in range of your wireless router, and then power on your unit.

2. Download and install the StreamMagic app from the Google Play store.

3. Open the StreamMagic app and select 'Connect'.

4. Under Choose a device select 'Set up a new device' and then select the EXN100.

5. Select 'Wireless Connection' and then 'Continue'.

6. Your Android device will now show all available Wi-Fi devices in range. Select 'Setup:EXN100'

7. Once connected, you will be prompted to enter your Wi-Fi network password. Enter the password and select 'Continue'.

8. Your EXN will now connect to your Wi-Fi network, this may take up to a minute.

9. Once connected, complete the initial setup of your unit within the StreamMagic app.

Note: Your EXN will need to be in range of your wireless router.

ARC input

Last updated: Oct 16, 2023 03:16. Revision #3830

The ARC function on a TV allows it to send audio and control commands to a connected audio product. This allows the TV to switch on the audio product when needed, and also to control the volume from the TV remote.

Troubleshooting

No signal shown on the front panel or no audio output from your connected product

Make sure the HDMI input on your TV supports ARC

Make sure the TV is set to use a connected audio system rather than its internal speakers

Make sure that the audio output of your TV is set to 'Stereo PCM (Uncompressed)'

Make sure your HDMI cable is compatible with HDMI 1.4 or above

TV will not switch on or control your connected product

Make sure that 'TV Power Control' is enabled in the StreamMagic app on the ARC source settings page

Reporting an issue

If after following the above troubleshooting steps you still have a problem getting ARC to work with your product, please let us know here.

StreamMagic app

Last updated: June 27, 2023 10:02. Revision #7008

Your player is network connected, not only can you listen to devices connected to the inputs on the product but you can also stream music from many different sources both on your home network and from the internet.

To set up your player, please first download the StreamMagic app from the Apple app store or Google Play store.

Set up

1. Switch on your player and follow the on screen instructions to select your preferred language.

2. Open the StreamMagic app and follow the instructions provided to complete setting up your player on your network. This process will also apply any new updates

that may be pending.

Note: During the set up process you will be asked to give your player a name, please make sure this is unique to your player. This will make it easier to find when using

streaming and smart home services.

Once your player is connected to your home network you'll have full control of your sources, including internet radio, streaming services, network and USB drives and

more.

For more information on our StreamMagic app, please visit: https://www.cambridgeaudio.com/eur/en/products/streammagic

Google Home / Chromecast built-in

Last updated: January 24, 2022 03:01. Revision #8832
Your player is network connected, not only can you listen to devices connected to the inputs on the product but you can also stream music from many different sources both on your home network and from the internet.
Your player features Chromecast built-in and can be incorporated in to your Google Home. To set up your player, download the Google Home app on your smart phone or tablet.
With Chromecast built into your player, your phone becomes your remote. Simply tap the Cast button from apps you already know and love to stream music, podcasts and playlists from your phone, tablet or laptop to your player.

Chromecast built-in
Your phone is your remote

• Simply tap the Cast button from apps you already know and love. No new logins or downloads required.

• Use your phone to search, play, pause and turn up the volume from anywhere in the home.

• While you're streaming, you can keep using your phone for other things – scroll through social media, send a text, and even accept calls.

• Enjoy music throughout your house when you use multi-room casting with Chromecast-enabled speakers.

• Just say "Hey Google" to cast to your player

Unlimited entertainment, all on your schedule

• Works with hundreds of apps and new apps are being added all the time.

• Choose from millions of songs from popular music services like Pandora, Spotify, and Youtube Music.

Android, Google Play and the Chromecast built-in logo are trademarks of Google Inc.

Internet radio

Last updated: January 5, 2023 12:41. Revision #10011

You can assign up to 99 of your favourite Internet Radio stations as presets on your player, which can then be recalled using the StreamMagic app

or a remote control if your player includes one

You can search and assign a preset via the StreamMagic app:

1. Within the StreamMagic app navigate to the Radio tab.

2. Use the Search for Radio search tab at the top of the page or enter a Custom URL link by selecting URL.

3. Once you have located the station you wish to store, select and you will be prompted with the option to Play now or Add to presets.

4. Add station to the desired preset for your player between 1-99.

5. You will then receive confirmation that the station is saved to the chosen preset.

Note: Please ensure that the custom URL stream is one of the following supported file types: ALAC, WAV, FLAC, AIFF, DSD (x256), WMA, MP3, AAC,

HE AAC AAC+, OGG Vorbis.

To remove a preset (iOS):

1. Within the StreamMagic app navigate to the Home tab.

2. Scroll to the bottom of the page where you find your players Presets, and select EDIT.

3. To remove station from preset, tap the red circle icon and then press Delete.

To remove a preset (Android):

1. Within the StreamMagic app navigate to the Home tab.

2. Scroll to the bottom of the page where you find your players Presets, and select EDIT.

3. Tap on the station you wish to remove.

Note: You may also assign a preset using a remote control, by pressing and holding a number on the remote whilst a station is playing.

Bluetooth source

The Bluetooth source allows your player to receive wireless Bluetooth audio from most phones, tablets and laptops.

Pairing

To begin streaming high-quality music from your chosen media source it will first need to be paired with your player.

1. Select the Bluetooth source on your player

2. Open your mobile device or laptops Bluetooth settings

3. Select your player from the list of available devices

4. Your device should now connect to your player

Once paired you should be able to connect to your player at any time by selecting the Bluetooth source on your player and then choosing your player from the list of previously connected devices.

Notes:

Your Bluetooth device can only be connected to your player while the Bluetooth source is selected.

The Bluetooth source cannot be used if listening on Bluetooth headphones via the Output Select feature.

AirPlay

Last updated: Oct 12, 2023 01:20. Revision #7022

AirPlay is an Apple technology designed to control home audio systems and speakers in any room — with a tap or by just asking Siri — right from iPhone, iPad, HomePod, or Apple TV. Play a song in the living room and kitchen at the same time or adjust the volume in any room, all in sync.
After installing your player, add it to the Apple Home app with a few simple steps using your iPhone or iPad

How to use AirPlay from iPhone or iPad

1. Ensure your player is connected to your network.

2. Open the app that you want to AirPlay from.

3. Tap or .

4. Select your player as your AirPlay device.

How to use AirPlay from Control Center

To switch the audio on your device from Control Center:

Swipe down from the top right side of the screen on your device to open Control Center.

Touch and hold in the upper-right corner, then select your player.

This product supports AirPlay 2 and requires iOS 11.4 or later.

Apple and AirPlay are trademarks of Apple Inc., registered in the U.S. and other countries.

Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and

has been certified by the developer to meet Apple performance standards.

Chromecast Built-in

Last updated: Oct 12, 2023 01:52. Revision #7004

Cast from Android Phone or Tablet

1. Ensure your player is connected to your network.

2. Open the app that you want to Cast from.

3. Select .

4. Select your player as your Chromecast device.

Note: Currently Chromecast Built-in only supports audio apps. Therefore, you will not be able to cast YouTube to your speakers. However, YouTube Music is fully supported over Chromecast.

Android, Google Play and the Chromecast built-in logo are trademarks of Google Inc.

Built-in streaming services

Last updated: November 2, 2022 09:55. Revision #10010

Your player has the following built-in streaming services:

Spotify Connect

TIDAL

Qobuz

Deezer

Note: It is essential that the device you are streaming from (smartphone, tablet, computer, etc.) is on the same Wi-Fi network as your player, to ensure that the units can communicate with each other.

Spotify Connect

Use your phone, tablet or computer as a remote control for Spotify.

Go to spotify.com/connect to learn how.

The Spotify Software is subject to third party licenses found here: www.spotify.com/connect/third-party-licenses

TIDAL (Connect)

1. Open the TIDAL app and choose the playlist, album, song, etc. that you wish to stream to your player.

2. Select the Sound Output devices icon within TIDAL and select your player from the list.

3. TIDAL Connect should now be streaming your chosen content to your player.

Go to tidal.com/connect to learn more

TIDAL (via StreamMagic)

1. Open the StreamMagic app and navigate to the Library tab, and then select TIDAL.

Note: Please ensure that you sign into your TIDAL account when prompted to do so. This will only be required on the first instance of use to link the

account to the StreamMagic app.

2. Choose the playlist, album, song, etc. that you wish to stream to your player.

3. TIDAL should now be streaming your chosen content to your player.

Qobuz (via Chromecast)

1. Open the Qobuz app and choose the playlist, album, song, etc. that you wish to stream to your player.

2. Select the Qobuz Connect icon within Qobuz and select your player from the list.

3. Qobuz should now be casting your chosen content to your player.

Qobuz (via StreamMagic)

1. Open the StreamMagic app and navigate to the Library tab, and then select Qobuz.

Note: Please ensure that you sign into your Qobuz account when prompted to do so. This will only be required on the first instance of use to link the

account to the StreamMagic app.

2. Choose the playlist, album, song, etc. that you wish to stream to your player.

3. Qobuz should now be streaming your chosen content to your player.

Deezer (via Chromecast)

1. Open the Deezer app and choose the playlist, album, song, etc. that you wish to stream to your player.

2. Select the speaker icon within Deezer, then select 'Google Cast'. Select your player from the list.

3. Deezer should now be casting your chosen content to your player.

Deezer (via StreamMagic)*

1. Open the StreamMagic app and navigate to the Library tab, and then select Deezer.

Note: Please ensure that you sign into your Deezer account when prompted to do so. This will only be required on the first instance of use to link

the account to the StreamMagic app.

2. Choose the playlist, album, song, etc. that you wish to stream to your player.

3. Deezer should now be streaming your chosen content to your player.

*Deezer is only available within the StreamMagic app when running firmware version 129-b-004 or later and StreamMagic app version 2.9.0 or later.

USB Audio

Last updated: October 26, 2023 02:25. Revision #7131

The USB Audio Input on your player is designed for use with PC and Mac computers. When connected, you will be able to playback music to the network player directly from the computer's apps, software or media players.
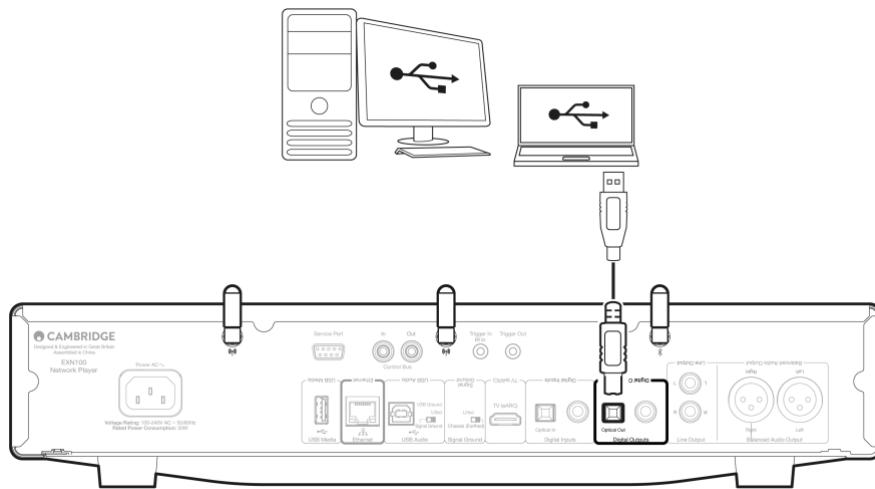
Note: If using **USB Class 1.0**, you will be able to playback at a maximum of **24bit / 96kHz**. If using **USB Class 2.0**, you will be able to playback at a maximum of **24bit / 192kHz**.

PC Setup

Note: Before connecting your PC to the EXN100, ensure you install the required Cambridge Audio Windows 2.0 USB driver on your PC. Please find a link to the most recent USB Audio driver here.

1. Connect your EXN100 to your PC.
After installing the correct driver, using a USB Audio cable (Type A to Type B), connect the USB Audio In on your EXN100 to a USB port on the PC.

2. Select the USB Audio source.
This can be done using the source selector on the front of the EXN100, or by going to the Home tab and then selecting USB Audio within the Sources section of the StreamMagic app.

3. Navigate to the CA Control Panel which should now be installed in your Windows taskbar. This will show any connected Cambridge Audio USB Audio device and current sample rate.

4. On your PC, navigate to Settings > System > Sound. Select the EXN100 as your output device from the drop-down menu.
5. Within this same window under Related Settings on the right-hand side, select Sound Control Panel.
6. On the Playback tab, ensure that the EXN100 is the default output device, then select Properties.
7. Within Speaker Properties, navigate to the Advanced tab. Select the desired bit depth and sample rate preference.
Note: This step is optional.
  8. Your PC's output will now playback via the EXN100.

Mac Setup

Note: No extra drivers are required when using a Mac.
1. Connect your EXN100 to your Mac.
Using a USB Audio cable (Type A to Type B), connect the USB Audio In on your EXN100 to a USB port on the Mac.
Note: If using a Mac without a USB Type A port, you may also use USB Type C (Thunderbolt 3) to USB Type B connection.
2. Select the USB Audio source.
This can be done using the source selector on the front of the EXN100 , or by going to the Home tab and then selecting USB Audio within the Sources section of the StreamMagic app.
3. Within the System Preferences of the Mac, locate the Sound settings. Select the EXN100 as the output sound device.
4. On the Mac navigate to Applications > Utilities > Audio MIDI Setup. Select the EXN100 as the output sound device on the left column, and then using the drop-down options select the desired bit depth and sample rate preference.
  5. Your Mac's output will now playback via the EXN100 .

USB Media

Last updated: Oct 12, 2023 02:26. Revision #7019

You may connect a USB SSD, USB HDD or flash drive to the EXN100 via the USB Media inputs located on the front and rear of the unit for playback. Once connected the following formats are supported: ALAC, WAV, FLAC, AIFF, DSD (x64), WMA, MP3, AAC, HE AAC, AAC+ and OGG Vorbis.

Note: The EXN100 will read large capacity hard drives connected to their USB inputs. However, some larger capacity drives will require you to use their own power supply.

The EXN100 will only support USB hard drives which are formatted to FAT32 and NTFS.

The primary function of the EXN100 is as a network music player. The USB ports are intended for convenient connection of USB thumb drives. As such, we cannot guarantee compatibility with all USB HDD's.

USB Media Playback (via Front Panel Controls)

1. Connect USB SSD, HDD or flash drive to either to front panel or rear panel USB Input.

2. Press the **Home** button on the front panel, then navigate to **Music Library**.

3. Within the Music Library locate the USB device and select the track, album or folder you wish to playback.

4. Upon selecting a track you will have the option to '**PLAY FROM HERE**', '**PLAY TRACK NOW**', '**PLAY TRACK NEXT**' or '**QUEUE TRACK**'.

USB Media Playback (via StreamMagic app)

1. Connect USB SSD, HDD or flash drive to either to front panel or rear panel USB Input.

2. Navigate to the Library tab of the StreamMagic app.

3. Under USB Drives, locate your USB Media device and open.

4. Upon selecting a track you will have the option to '**PLAY FROM HERE**', '**PLAY TRACK NOW**', '**PLAY TRACK NEXT**' or '**QUEUE TRACK**'.

Playback Options:

PLAY FROM HERE – Playback of album/folder will begin from this point onwards.

PLAY TRACK NOW – Selected track will playback immediately.

PLAY TRACK NEXT – Selected track will be added to queue and playback next.

QUEUE TRACK – Selected track will be added to playback queue.

Streaming Your Local Digital Music Collection

Last updated: October 26, 2023 02:26. Revision #7110

The EXN100 can play content from many different physical sources and this section will explain what you need to do to access and play your locally stored digital music collection. 'Locally Stored' means the digital music files you have on your **PC**, **Mac** or **Network Attached Storage devices** (**NAS**).

To stream local content, you will need the following hardware and software running in your network:

1. Your Cambridge Audio EXN100 Network Player.

2. A mobile device such as a smartphone or tablet on which you can run the StreamMagic app, or by accessing your collection via the front panel controls.

3. A hard drive, computer or NAS containing your compatible digital music files.

4. An active UPnP music or media server.

5. A router which is configured to allow the UPnP service.

Note: The above items must be correctly connected and configured, and it is important to note that depending on the server, NAS, computer, etc. you're using this will differ from setup to setup. To help you with this we have created best practice guide which should get you up and running with minimal fuss and effort. This can be found here.

MQA (Master Quality Authenticated)
Last updated: July 26, 2023 03:28. Revision #10039

Your player includes MQA technology, which enables you to play back MQA audio files and streams, delivering the sound of the original master recording.

The front panel will display MQA green or blue to indicate that the unit is decoding and playing an MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material. It displays MQA blue to indicate it is playing an MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner.

Settings

Last updated: November 2, 2023 05:06. Revision #7287

Device Name

This is how your player will appear in your StreamMagic app and on your home network when using services like Spotify, Chromecast built-in and TIDAL Connect.

Giving your player a unique name makes it easier to distinguish when using streaming and smart home services.

AirPlay Name

This is how your player will appear when using AirPlay 2 or the Apple Home app.

Standby Mode

This selects what type of standby mode your player will use.

In **Network Standby mode** your player will still be controllable by the StreamMagic app and other network services

In **Eco mode** your player will use less power than in Network Standby mode but will need to be switched on either by the front panel or the remote control before it can be seen and controlled by the StreamMagic app and other services.

Automatic Power Down

This sets how long your player will wait while inactive before switching in to standby.

Roon Ready DSD

This will allow you to choose how Roon provides DSD content.
Use DoP for digital output – If your device does support native DSD in DoP format.
Use PCM for digital output – If your device doesn't support native DSD.

Display Brightness

This sets the brightness of your player's display. If set to 'Off' the display will show for a few seconds after any change and then switch off.

USB Audio Class
This sets the USB Audio Class for the USB Audio input.

USB Audio Class 1.0 (default) works with USB 1.1 ports and supports up to 24-bit/96kHz.

USB Audio Class 2.0 requires a USB 2.0 port and can support up to 32-bit/384kHz (asynchronous) and up to DSD-256.
Depending on your PC or laptop you may require an additional driver.

For more info about USB Audio see our online guide.

Roon Ready DSD

This will allow you to choose how Roon provides DSD content.

Use DoP for digital output – If your device does supports native DSD in DoP format.

Use PCM for digital output – If your device doesn't support native DSD.

Control Bus

If your device is connected to a Cambridge Audio amplifier using a control bus connector, volume commands can be sent directly to the amplifier. For more information, please refer to the Getting Connected section of this manual under 'Control Bus'.

Pre-amp

With Pre-Amp mode enabled the volume of the device's line output can be controlled using the app, the remote or the rotary dial. For more information see

our FAQ.

Volume Limit

This sets the maximum volume that other streaming services like AirPlay, Spotify, TIDAL Connect and Chromecast built-in can set.
The front panel,remote control and StreamMagic app volume controls can override this setting.

Early Update
Setting this to 'On' will let you try out the latest firmware ahead of general release.
For more information and to find out what's new visit our FAQ.

Firmware
This will check for and apply any new firmware available for your player.
You can also check for new updates on the info screen and manually update the unit's firmware by following the steps below:

1. Hold down the '(i)' (Info) button on the front panel of the EXN.
2. As instructed on the display, press the 'play/pause' button to check for new firmware. The new firmware version will now update if there is one available.

When left in network standby overnight your player will check and apply any new updates.

Factory Reset

This will return your player to its factory settings.

You can also do this from the info screen by following the steps below:

1. Hold down the '(i)' (Info) button on the front panel of the EXN100.
2. As instructed on the display, hold down the 'reverse skip' button to perform the factory reset.

Technical Specification

Last updated: Oct 12, 2023 02:37. Revision #7015

D/A CONVERTERS
ES9028Q2M

ANALOGUE FILTER
2-Pole Dual Differential Bessel Double Virtual, Earth Balanced

THD @ 1kHz 0dBFs
<0.001% 24-bit (at volume set to full)

THD @ 1kHz -10dBFs
<0.001% (at volume set to full)

THD @ 20kHz 0dBFs
<0.002% (at volume set to full)

FREQUENCY RESPONSE
20Hz-20kHz +/- 0.1dB *

SIGNAL TO NOISE RATIO
-112dBr (at volume set to full)

TOTAL CORRELATED JITTER
< 130pS

CROSSTALK @ 1kHz
< -100dB

CROSSTALK @ 20kHz
< -90dB

DIGITAL OUTPUTS

S/PDIF Coaxial: 16/24-bit, 32-192kHz

TOSLINK Optical: 16/24-bit, 32-96kHz

AUDIO FORMATS
WAV containing uncompressed, PCM 16-24 bit 32-192kHz, FLAC containing losslessly compressed, PCM 16-24 bit 32-192kHz, Apple Lossless (ALAC)
containing losslessly compressed PCM 16-24 bit 32-192kHz, AIFF containing uncompressed, PCM 16-24 bit 32-192kHz, Microsoft® Windows Media   TM Audio (WMA 9 Standard)
32-320kbps, MP3 (CBR or VBR) 16-320kbps, AAC, HE AAC and AAC+, (CBR or VBR) 16-320kbps, OGG Vorbis

DIGITAL AUDIO INPUTS

 1 x TOSLINK optical, 1 x S/PDIF coaxial, Bluetooth (integrated), 1 x TV ARC, USB Audio
 USB Audio: USB Type B conforming to USB Audio Class 1 or USB Audio Class 2 (user selectable) ,   current limited to 1A

Bluetooth: 5.0 A2DP/AVRCP supporting SBC and AAC, aptX and aptX HD codecs

STREAMING PROTOCOLS
RTSP (Real Time Streaming Protocol), MMS (Microsoft Media Server Protocol), HTTP (Hyper Text Transfer Protocol).

CONNECTIVITY
UPnP, Local USB media, Airplay 2, Chromecast built-in, Internet Radio, Spotify Connect, TIDAL, Qobuz, Roon Ready.

PLAYLIST
ASX (Microsoft® playlist format) M3U, PLS

WI-FI
Dual band (2.4GHz/5GHz)

ETHERNET
IEEE 802.3, 10 Base-T or 100 Base-T

Compatibility
UPnP, Local USB media, Chromecast built-in, Spotify Connect, TIDAL, Qobuz, Deezer, RoonReady, Airplay2,

FILE SYSTEMS
FAT32, NTFS

MAINS INLET VOLTAGE
100-240 VAC (switch mode)

STANDBY CONSUMPTION
<0.5W

MAX POWER CONSUMPTION
30W

DIMENSIONS (W x H x D)
430 x 90 x 305mm (16.9 x 3.5 x 12.2")

WEIGHT
 4Kg (8.8lbs)

Source Quality Matrix

Last updated: February 21, 2023 11:51. Revision #8883

SOURCE	DELIVERY METHOD	MAXIMUM RESOLUTION
Spotify Connect	Mobile/Desktop App	320kbps
Spotify AirPlay	Mobile/Desktop App	320kbps
Spotify Chromecast	Mobile/Desktop App	320kbps
Spotify Bluetooth	Mobile/Desktop App	aptX HD
TIDAL Connect	Mobile/Desktop App	24bit / 48 kHz
TIDAL (via StreamMagic app)	StreamMagic App	24bit / 48 kHz
TIDAL AirPlay	AirPlay 2	16bit / 44kHz
TIDAL Chromecast	Chromecast	24bit / 96 kHz
TIDAL Bluetooth	Bluetooth	aptX HD
TIDAL Roon	Roon Endpoint	24bit / 192 kHz
TIDAL Roon	USB Class 2	24bit / 192 kHz
TIDAL Desktop App	USB Class 2	24bit / 192 kHz
Qobuz (via StreamMagic app)	StreamMagic App	24bit / 192 kHz
Qobuz AirPlay	AirPlay 2	16bit / 44kHz
Qobuz Chromecast	Chromecast	24bit / 96 kHz
Qobuz Bluetooth	Bluetooth	aptX HD
Qobuz Roon	Roon Endpoint	24bit / 192 kHz
Qobuz Roon	USB Class 2	24bit / 192 kHz
Qobuz Desktop App	USB Class 2	24bit / 192 kHz
Third Party App (via AirPlay)	AirPlay 2	16bit / 44kHz
Third Party App (via Chromecast)	Chromecast	24bit / 96 kHz

Troubleshooting

Last updated: October 27, 2023 02:15. Revision #7157

If you experience any trouble with your EXN100, then you may find it useful to visit the help section on our webpage at: https://techsupport.cambridgeaudio.com/

General Help guidelines:

If you have trouble connecting the EXN100 to your network, these steps may help to resolve the problem:

- Confirm that a connected computer can access the Internet (i.e., can browse the web) using the same network.
- Check that a DHCP server is available, or that you have configured a static IP address on the EXN100. You can configure a static IP address on the EXN100 using the menu item **Settings** > **Network Config** > **Edit Config**, and then select '**No**' for '**Auto (DHCP)'**. DHCP is however the recommended method.
- Check that the UPnP is enabled on your router if this is an option.
- Check that your network's firewall is not blocking any outgoing ports. As a minimum, the radio needs access to UDP and TCP ports 80, 554, 1755, 5000, 6000 and 7070.
- Check your access point does not restrict connections to a particular MAC address. You can view the radio's MAC address using the menu item **Settings** > **Network Config** > **View Config** > **MAC address**.
- If you have an encrypted Wi-Fi network, check that you have entered the correct key or passphrase into the EXN100. Remember that text-format keys are case sensitive. If, when attempting to connect to an encrypted network, your EXN100 displays: 'Wireless error' followed by a 5-digit number, then please ensure that you enter the correct passphrase for the network. If the problem persists, then you may need to consult your network configuration.
- Check the Wi-Fi dongle is securely connected to the unit, and in the correct USB port labelled '**Wi-Fi Dongle**'.

- Check the units Wi-Fi signal strength. You can do this by pressing and holding the front panel button. If signal is low, try connecting your EXN100 directly to your router using a wired Ethernet connection.
- If none of the above steps work, reboot and/or factory reset your router.

If your EXN100 can connect to the network successfully, but is unable to play particular StreamMagic stations, it may be due to one of the following causes:

- The station is not broadcasting at this time of the day (remember it may be in a different time zone). The station has reached
- the maximum allowed number of simultaneous listeners.
- The station is not broadcasting anymore.
- The link in our database is simply out of date.
- The Internet connection between the server (often located in a different country) and you is slow. Try using a computer to
- play back the stream via the broadcaster's web site.

If you have problems with UPnP playback, always check the following:

- Ensure your chosen UPnP server software can serve the file type you are trying to access. Some servers do not serve FLAC for instance. The EXN100 can only play
- non-DRM files. Files that have DRM controls cannot be played by the EXN100. Some servers may be able to authorise and de-crypt Microsoft Playsforsure before then serving the content to the EXN100 but this operation is not guaranteed as it is purely a function of the server.
- If attempting to play 24-bit WAV or FLAC content note a wired Ethernet connection is normally required for reliable operation due to bandwidth considerations.
- Check the EXN100 can play back the file type you are trying to access. WMA, AAC, MP3, Vorbis, FLAC and WAV can currently be played. The EXN100 does not support ALAC, WMA Pro, WMA lossless, RAW, AU or other file types not mentioned.

If you have problems with USB Media playback, always check the following:

- Check the EXN100 can playback the file type you are trying to access. WMA, AAC, MP3, Vorbis, FLAC and WAV can currently be played. The EXN100 does not support
- ALAC, WMA Pro, WMA lossless, RAW, AU or other file types not mentioned.
- For USB Media the EXN100 can only play non-DRM files. Files that have DRM controls cannot be played. Check that your device
- does not require more than 1A if it is powered from the USB socket itself.
- Check your device is formatted in FAT32/NTFS format.
- The way you organise your USB media affects the size of internal database the EXN100 needs to build dynamically as you browse content. It is good practise to create folders for Artists within which you should have a sub folder for each Album which then containing the tracks for that Album. Libraries with thousands of tracks in one folder will progressively slow down the EXN100's media browsing.

FAQ's: