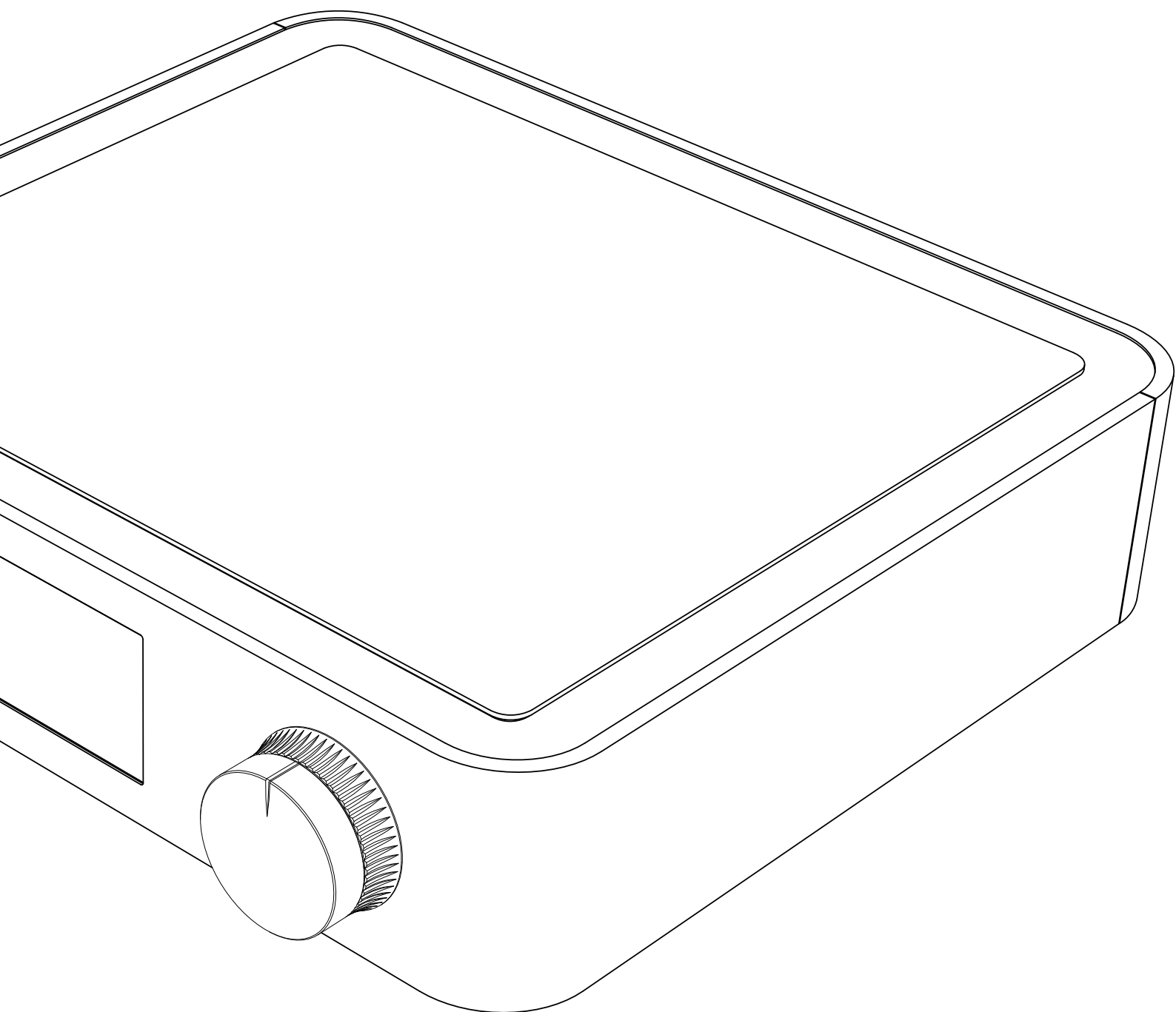




Edge NQ

Network preamplifier

Contents

Important safety instructions	3
Front panel controls	5
Rear panel connections	6
Remote control	7
Connections	8
Technical specifications	10
Troubleshooting	11

Make sure you register your purchase.

Visit: www.cambridgeaudio.com/vip

By registering, you'll be the first to know about:

- **Future product releases**
- **Software upgrades**
- **News, events and exclusive offers plus competitions!**

IMPORTANT!

The Edge NQ is largely a software based product and new features and updates will be made available from time to time. See the Upgrade Firmware section at the end of this manual for how to check for and then automatically update your unit via the internet. The process takes only a few minutes.

We would encourage you to check for any updates before using your Edge NQ for the first time and then from time to time afterwards.

Also please do check the support page for the Edge NQ at

<http://techsupport.cambridgeaudio.com> for details of any new features, advice on compatibility with other products and audio formats and the most recent copy of this manual.

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 printing; however, Cambridge Audio's policy is one of continuous improvement, therefore design and specifications are subject to change without prior notice.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic or other means, in any form, without prior written permission of the manufacturer. All trademarks and registered trademarks are the property of their respective owners.

© Copyright Cambridge Audio Ltd 2017.

Stream Magic is a trademark of Audio Partnership Plc and is registered in the European Community and other countries.

This product contains software licensed under version 2 of the GNU Public License and version 2.1 of the GNU Lesser Public License. The source code for this software is available from:

<http://gpl.stream-magic.com/>

This product includes technology owned by Microsoft Corporation and under a licence from Microsoft Licensing GP. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft Corporation and/or Microsoft Licensing, GP as applicable.

The Spotify software is subject to third party licenses found here:

<https://developer.spotify.com/esdk-third-party-licenses/>

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries, used with permission. aptX is a trademark of Qualcomm Technologies International, Ltd., registered in the United States and other countries, used with permission.

Important safety instructions

For your own safety please read the following important safety instructions carefully before attempting to connect this unit to the mains power supply. They will also enable you to get the best performance from and prolong the life of the unit:

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 a 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 are 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 plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use with only the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power-supply cord or plug having been damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



WARNING:

- Do not install this equipment in a confined or building-in space such as a book case or similar unit, and remain a well ventilation conditions. The ventilation should not be impeded by covering the ventilation openings with items such as newspaper, table-cloths, curtains etc.
- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.
- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- The battery (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.
- The mains plug is used as disconnect device, the disconnect device shall remain readily operable.
- Please refer the information on exterior rear panel or bottom enclosure for electrical and safety information before installing or operating the apparatus.
- Only use the mains cord supplied with this unit.

Use of the apparatus in tropical climates (The equipment shall be used at maximum 45 degree C ambient temperature).

The unit is of Class 1 construction and must be connected to a mains socket outlet with a protective earthing connection.



The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of un-insulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

- Warning: To reduce the risk of electric shock, do not remove cover (or back) as there are no user-serviceable parts inside. Refer servicing to qualified personnel.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the service literature relevant to this appliance.

VENTILATION

IMPORTANT – The unit will become hot when in use. Do not stack multiple units on top of each other.

Ensure that small objects do not fall through any ventilation grille. If this happens, switch off immediately, disconnect from the mains supply and contact your dealer for advice.

POSITIONING

Choose the installation location carefully. Avoid placing it in direct sunlight or close to a source of heat. No naked flame sources, such as lighted candles, should be placed on the unit. Also avoid locations subject to vibration and excessive dust, cold or moisture. The unit can be used in a moderate climate.

This unit must be installed on a sturdy, level surface. Do not place in a sealed area such as a bookcase or in a cabinet. Do not place the unit on an unstable surface or shelf. The unit may fall, causing serious injury to a child or adult as well as serious damage to the product. Do not place other equipment on top of the unit.

Due to stray magnetic fields, turntables or CRT TVs should not be located nearby due to possible interference.

Electronic audio components have a running in period of around a week (if used several hours per day). This will allow the new components to settle down and the sonic properties will improve over this time.

POWER SOURCES

The unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power-supply to your home, consult your product dealer or local power company.

If you do not intend to use this unit for a long period of time, unplug it from the mains socket.

OVERLOADING

Do not overload wall outlets or extension cords as this can result in a risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation and broken plugs are dangerous. They may result in a shock or fire hazard.

Be sure to insert each power cord securely. To prevent hum and noise, do not bundle the interconnect leads with the power cord or speaker leads.

CLEANING

To clean the unit, wipe its case with a dry, lint-free cloth. Do not use any cleaning fluids containing alcohol, ammonia or abrasives. Do not spray an aerosol at or near the unit.

BATTERY DISPOSAL

Batteries may contain substances harmful to the environment. Please dispose of any discharged batteries with due consideration and in accordance with local environmental/electronic recycling guidelines.

SERVICING

These units are not user serviceable. Never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem. A serious electric shock could result if this precautionary measure is ignored. In the event of a problem or failure, please contact your dealer.



WEEE SYMBOL

The crossed-out wheeled bin is the European Union symbol for indicating separate collection for electrical and electronic equipment. This product contains electrical and electronic equipment which should be reused, recycled or recovered and should not be disposed of with unsorted regular waste. Please return the unit or contact the authorised dealer from whom you purchased this product for more information.



CE MARK

This product complies with European Low Voltage (2014/35/EU), Electromagnetic Compatibility (2014/30/EU) and Environmentally-friendly design of Energy-related Products (2009/125/EC) Directives when used and installed according to this instruction manual. For continued compliance only Cambridge Audio accessories should be used with this product and servicing must be referred to qualified service personnel.



RCM (REGULATORY COMPLIANCE MARK)

This product meets Australia, New Zealand Safety, EMC and Radio Communications requirements of the ERAC and ACMA.



CU-TR Mark

This product meets Russia, Byelorussia and Kazakhstan electronic safety approvals.

Wi-Fi information

For WiFi Connectivity this device comes supplied with an external wifi dongle that plugs into the USB port of your device.

This wifi dongle has been tested in conjunction with your (Insert product). It is not recommended to use any other type of dongle than the type that has been supplied.

This device meets all the technical and regulatory requirements of your region. Please refer to specific in country information.



FCC STATEMENT

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.

FEDERAL COMMUNICATIONS COMMISSION NOTICE

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 and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

2.4 GHz Wi-Fi operation of this product in the USA is hardware limited to channels 1 through 11.

RF EXPOSURE STATEMENT:

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

MODIFICATIONS

The FCC requires the user to be notified that any changes or modifications to this device that are not expressly approved by Cambridge Audio, may void the user's authority to operate the equipment.

CANADA-INDUSTRY CANADA (IC)

This radio transmitter has been approved by Industry Canada.

This device complies with Industry Canada License exempt RSS standard(s).

Operation is subject to the following two conditions.

(1) this device may not cause interference and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

The transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

INDUSTRIE CANADA (IC)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

L'émetteur ne doit pas être co-placé ni fonctionner en conjonction avec une autre antenne ou transmetteur.

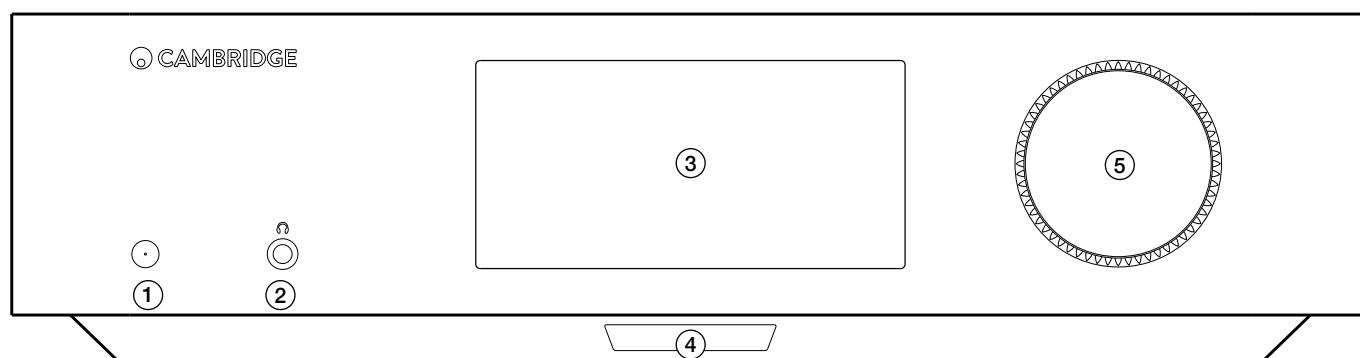
EUROPE-EUROPEAN UNION NOTICE

Radio products with the CE marking comply with the RED Directive (2014/53/EU) issued by the Commission of the European Community.

Compliance with this directive implies conformity to the following European Norms.

- EN 60065 – Product Safety.
- EN 300 328 – Technical requirement for radio equipment.
- EN 301 489 – General EMC requirements for radio equipment.

Front panel controls



1. STANDBY/ON

Switches the unit between Standby mode (indicated by dim LED) and On (indicated by bright LED). Standby mode is a low power mode where the power consumption is less than 0.5 Watts. The unit should be left in Standby mode when not in use.

AUTO POWER DOWN (APD)

This unit has an Auto Power Down function. The product will automatically switch to standby mode after inactivity of 30 minutes. To enable or disable this function, use the Edge app.

2. HEADPHONES

For suitable headphones – connection will automatically mute the outputs.

3. DISPLAY

Displays the status of the unit.

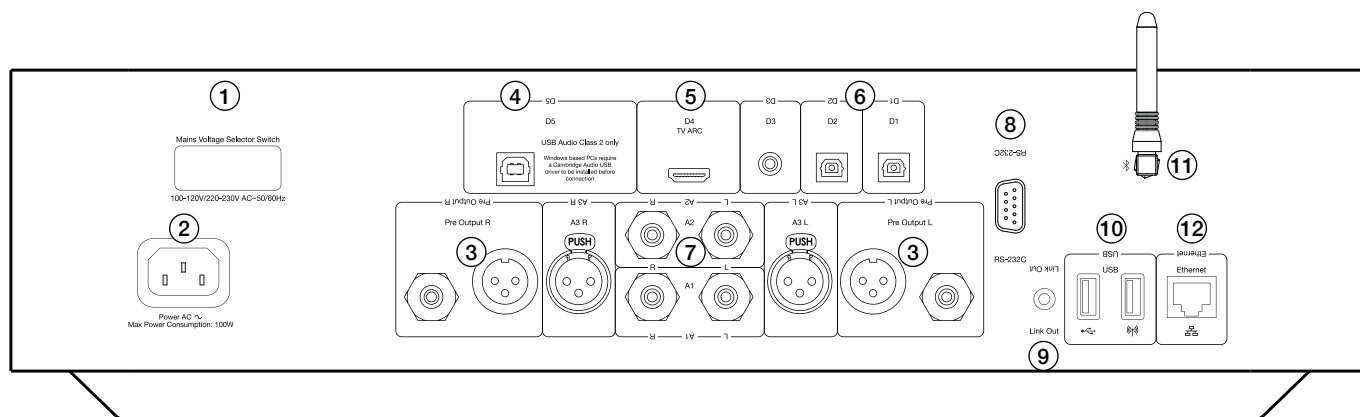
4. IR SENSOR

Used for remote control.

5. VOLUME/SOURCE SELECTOR

To change the volume, rotate the front part. To select a source, rotate the back part.

Rear panel connections



1. VOLTAGE SELECTOR SWITCH

Note: For use by Cambridge Audio service personnel only!

2. AC POWER SOCKET

3. PRE OUT

4. USB AUDIO IN

For connecting to PC/MAC computers.

Class 2 USB Audio only

Windows based PCs require a Cambridge Audio USB driver to be installed before connection.

5. AUDIO RETURN CHANNEL (ARC)

Connection from a product that supports ARC function

6. DIGITAL INPUTS (D1, D2 AND D3)

7. BALANCED XLR (A3)/ UNBALANCED (A1 AND A2)

8. RS232

Custom install control - a full protocol is available for the Edge NQ on our website.

9. LINK

Refer to the 'Power syncing' section of this manual for more information.

10. USB SOCKETS

For connecting a Wi-Fi dongle and a local media storage.

Note: The USB ports are not intended for connection to Apple mobile devices, no functionality, charging or otherwise is supported.

11. BLUETOOTH ANTENNA

Used for wireless streaming bluetooth (A2DP/aptX HD) audio capability directly from most phones, tablets and laptops. See later section for details.

12. ETHERNET

Ethernet port for connecting to a 10/100BASE-T local area network (LAN).

Remote control

1. STANDBY/ON

Switches the unit between Standby mode and On.

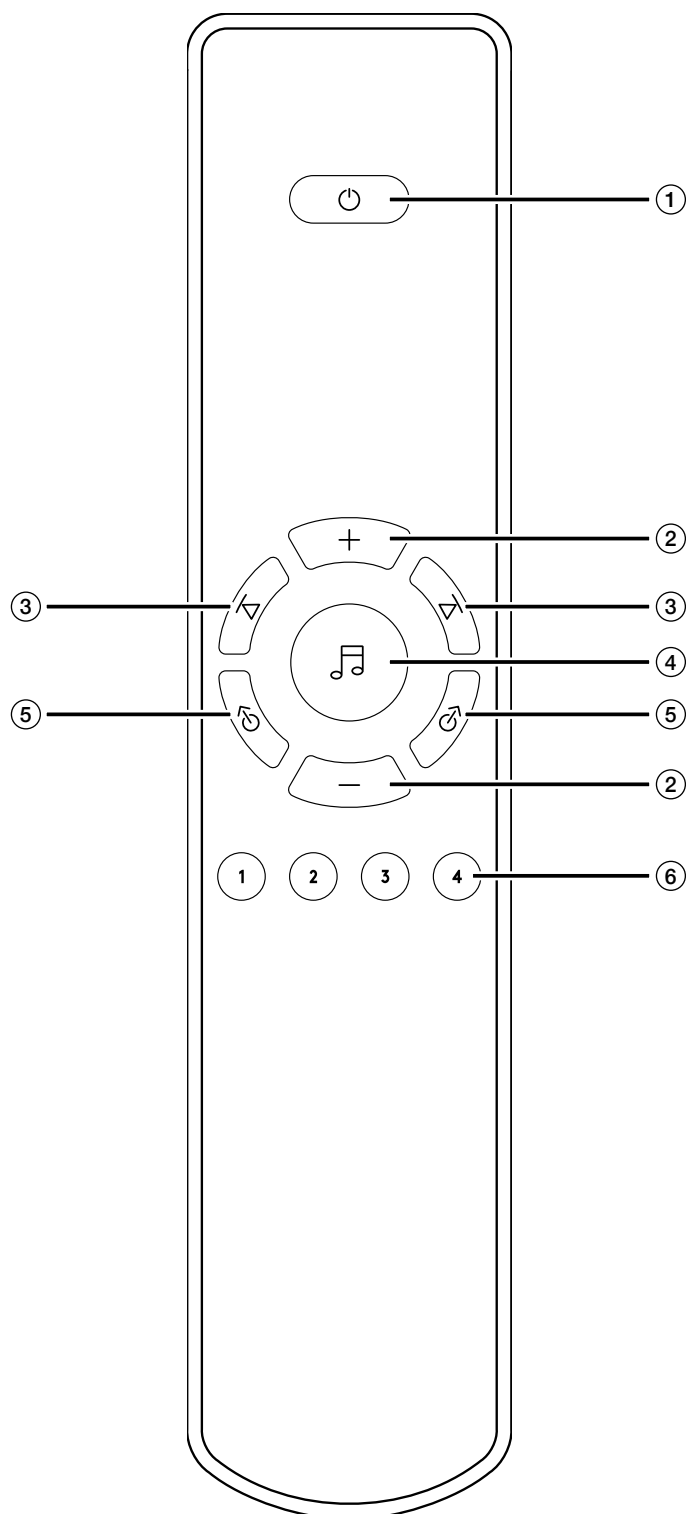
2. VOLUME

3. SKIP

4. PLAY/PAUSE MUTE/UNMUTE

5. SOURCE SELECTOR

6. PRESETS

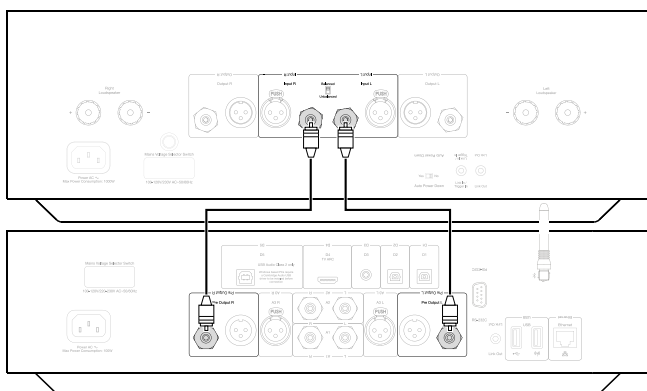


Connections

Note: Switch the power off before making connections.

BASIC AUDIO CONNECTIONS

Connecting the Edge NQ to an amplifier (02.) using the Pre output.

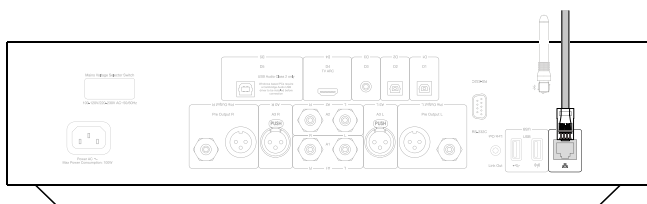


NETWORK CONNECTIONS

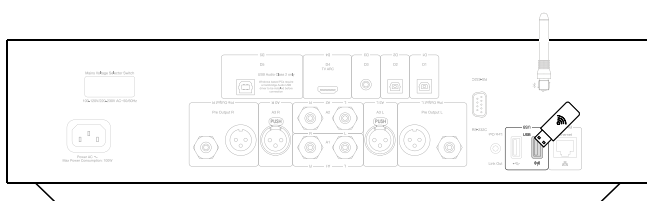
To use the UPnP media sharing feature, Internet radio, Streaming Services or to receive product software updates, you will need either a wired Ethernet or Wi-Fi connection to your network.

Use a wired connection for seamless playback of high resolution 176kHz and 192kHz files.

CONNECTING TO A WIRED NETWORK



CONNECTING TO A WIRELESS NETWORK

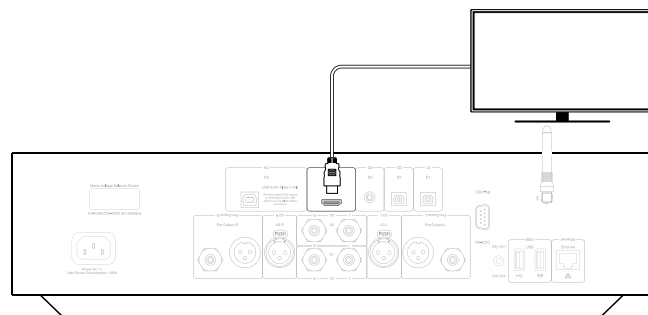


Connect the supplied wireless dongle to the correct USB input on the rear of Edge NQ – it will need to be in range of your wireless router.

Important note: Do not plug/unplug the wireless dongle when the unit is on. On an iOS device go to Wi-Fi settings and select 'Edge NQ'.

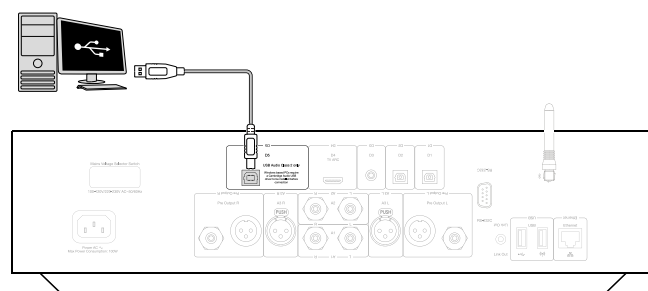
AUDIO RETURN CHANNEL (ARC)

Connecting the Edge NQ to a TV that supports ARC function.



USB AUDIO CONNECTION

Note: Use a certified high speed USB 'A-B' cable.

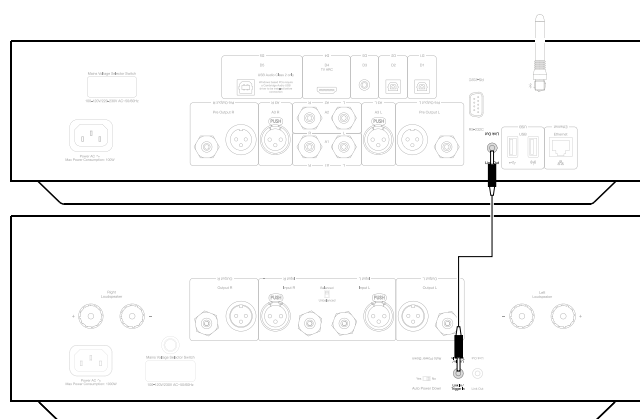


The Edge NQ USB Audio input is intended to connect directly to a PC or Mac computer. The Edge NQ configuration is USB Audio profile 2.0.

For more details on USB Audio, see our online guides at: www.cambridgeaudio.com/USB-audio.

POWER SYNCING (ON/STANDBY CONTROL)

Link Out can be useful if the Edge NQ (02.) is to control other Cambridge Audio equipment (01.) that features Link inputs.



HOW TO USE CONNECT

You'll need Spotify Premium to use Connect.

1. Add your Edge NQ to your wifi network (see product user instructions for details).
2. Fire up the Spotify app on your phone, tablet or PC using the same wifi network as above.
3. Play a song on Spotify and hit 'DEVICES AVAILABLE'.
4. Choose Edge NQ and your music will start playing out loud.

Happy listening.

Licenses

The Spotify Software is subject to third party licenses found here:
<https://developer.spotify.com/esdk-third-party-licenses/>

Technical specifications

D/A Converters	ESS ES9018K2M	USB	1 x USB 1.1 current limited to 1A
THD @ 1kHz odBFs	<0.001% 24-bit	USB audio input	USB Audio profile 2.0
THD @ 1kHz -10dBFs	<0.001%	Compatibility	USB 2.0: Up to 32-bit 384kHz TOSLINK: 16/24-bit 32-96kHz Coax SPDIF: 16/24-bit 32-192kHz
THD @ 20kHz odBFs	<0.002%		
Frequency Response	20Hz-20kHz +/- 0.1dB *	File systems	FAT32, NTFS
S/N ratio(ref 1W into 8 Ohm)	>88 dB	Standby consumption	<0.5W
S/N ratio (ref full power)	>103 dB	Max power consumption	100W
Total correlated jitter	< 130pS	Dimensions	120 x 460 x 405mm (4.7 x 18.1 x 15.9")
Crosstalk @ 1kHz	< -100dB	Weight	17kg (37.4lbs)
Crosstalk @ 20kHz	< -90dB		
Audio Formats (Audio files over Ethernet, Wi-Fi or attached USB storage device)	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™ Audio (WMA 9 Standard) 32- 320kbps MP3 (CBR or VBR) 16-320kbps AAC, HE AAC and AAC+ (CBR or VBR) 16-320kbps OGG Vorbis 32-320kbps DSF and DFF containing DSD64 at 2.8224 MHz or DSD128 at 5.6448 MHz	* iRadio/Streaming Services are output as 16-bit data at the appropriate sample rate for the decompressed data. The sample rate will be 32kHz, 44.1kHz or 48kHz depending on the streams sample rate. Incoming streams of less than 32kHz sample rate cannot be output over S/P DIF /TOSLINK. For compressed streams the true resolution of the audio is of course limited by the encoding. For Media content from local drives or UPnP this outputs in its native resolution of 16/24-bit, 32kHz, 44.1kHz, 48kHz, 96kHz, 88.2kHz, 176.4kHz and 192kHz with bit for bit transfer.	
Streaming Protocols	RTSP (Real Time Streaming Protocol) MMS (Microsoft Media Server Protocol) HTTP (Hyper Text Transfer Protocol)		
Playlist	ASX (Microsoft® playlist format) M3U, PLS		
Wi-Fi	IEEE 802.11 b/g or n (2.4GHz connection used only)		
Wi-Fi Encryption	WEP, WPA, WPA2		
Ethernet	IEEE 802.3, 10 Base-T or 100 Base-T		

Troubleshooting

If you experience any trouble with your Edge NQ, then you may find it useful to visit the help section on our webpage at: <http://support.cambridgeaudio.com/>.

If you have trouble with the Stream Magic service then you may also find it useful to visit the help section at www.stream-magic.com.

General Help guidelines:

If you have trouble connecting the Edge NQ 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 Edge NQ. You can configure a static IP address on the Edge NQ using the menu item 'Settings -> Network Config -> Edit Config', and then select 'No' for 'Auto (DHCP)'. DHCP is however the recommended method.
- 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 addresses. 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 Edge NQ. Remember that text-format keys are case sensitive. If, when attempting to connect to an encrypted network, your Edge NQ 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.

If your Edge NQ can connect to the network successfully, but is unable to play particular Stream Magic 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 located 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 can play back the station with a computer, you can use the format www.stream-magic.com to notify us so that we can investigate.

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

- Ensure your chosen UPnP server software is capable of serving the file type you are trying to access. Some servers do not serve FLAC for instance.
- The Edge NQ can only play non DRM files. Files that have DRM controls cannot be played by the Edge NQ. Some servers may be able to authorise and de-crypt Microsoft Playsforsure before then serving the content to the Edge NQ 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 Edge NQ is capable of playing back the file type you are trying to access. WMA, AAC, MP3, Vorbis, FLAC and WAV can currently be played. The Edge NQ 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 Edge NQ is capable of playing back the file type you are trying to access. WMA, AAC, MP3, Vorbis, FLAC and WAV can currently be played.
- The Edge NQ does not support ALAC, WMA Pro, WMA lossless, RAW, AU or other file types not mentioned.
- For USB Media the Edge NQ 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 Edge NQ needs to build dynamically as you browse content. Good practice is to create folders for Artists within which you should have a sub folders for each Album which then containing the tracks for that Album. Libraries with thousands of tracks in one folder will progressively slow down the Edge NQs media browsing.

For all servicing, in or out of warranty, please contact your dealer.

Cambridge Audio is a brand of Audio Partnership Plc
Registered Office: Gallery Court, Hankey Place
London SE1 4BB, United Kingdom
Registered in England No. 2953313

www.cambridgeaudio.com

