

 **CAMBRIDGE**

**CXN**

NETWORK PLAYER



**GREAT BRITISH  
SOUND** SINCE 1968

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### Important!

The CXN 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 CXN for the first time and then from time to time afterwards.

Also please do check the support page for the CXN 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.

**Make sure you register your purchase.**

**Visit: [www.cambridgeaudio.com/vip](http://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!

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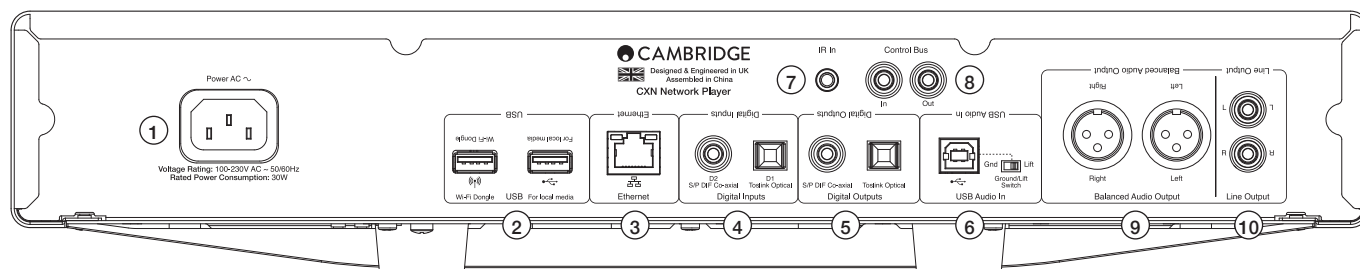
This product contains software licensed under version 2 of the GNU Public License and version 2.1 of the GNU Lesser Public License. The source code for this software is available from:

<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: [www.spotify.com/connect/third-party-licenses](http://www.spotify.com/connect/third-party-licenses).

## Rear panel connections



### ① AC power socket

### ② USB sockets

For connection to the supplied Wi-Fi antenna, USB HD/flashdisk or optional BT100 Bluetooth audio receiver.

**Note:** For Wi-Fi antenna, this must be plugged into the USB Wi-Fi antenna port. The USB ports are not intended for connection to Apple mobile devices, no functionality, charging or otherwise is supported.

### ③ Ethernet

### ④ Digital inputs

### ⑤ Digital outputs

### ⑥ USB audio in

For connecting to PC/MAC computers.

### Ground lift switch

Enable 'Lift' to eradicate hum noise through the speakers.

### ⑦ IR (Infra Red) emitter in

### ⑧ Control bus

For connection to other CX series products. Features vary according to other product functionality.

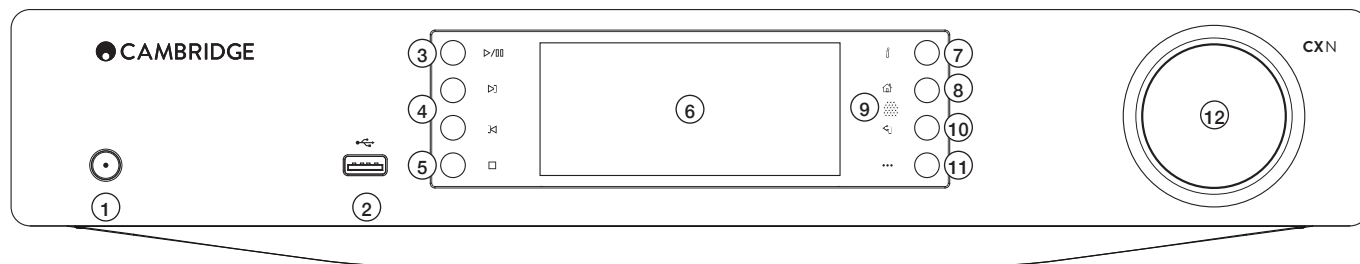
### ⑨ Balanced audio output

For use with XLR connections.

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

### ⑩ Line output

## Front panel controls



### ① Power On/Off

### ② USB

For use with USB audio storage. 1A maximum current consumption.

**Note:** This USB port is not intended for connection to Apple mobile devices.

### ③ Play/Pause

### ④ Skip

### ⑤ Stop/Delete

Press during playback to stop or delete items in various menus.

### ⑥ Display

Displays the status of the unit.

### ⑦ (i) Info

Displays 'Now Playing' screen. Press to toggle through various screen layouts.

### ⑧ Home

### ⑨ Infrared sensor

### ⑩ Return

Press to return to the previous menu.

### ⑪ (More)

When playing Internet Radio, the More button displays related options to the currently selected station such as alternative stream types, content types or similar stations. When playing from UPnP sources, this button displays queued tracks and options.

### ⑫ Navigation/Select (rotary dial)

Rotate to scroll and navigate around the menus. Press to accept the item/function shown on the display.

## Remote control

### 1. Standby/On

### 2. Display brightness

### 3. Mute

(Pre-amp mode)

### 4. (More)

When playing Internet Radio, the More button displays related options to the currently selected station such as alternative stream types, content types or similar stations. When playing from UPnP sources, this button displays queued tracks and options.

### 5. Digital input

### 6. Random

### 7. Repeat

### 8. Volume

(Pre-amp mode)

### 9. Home menu

### 10. Info

Toggles between display information.

### 11. Skip

Skips between tracks.

### 12. Enter

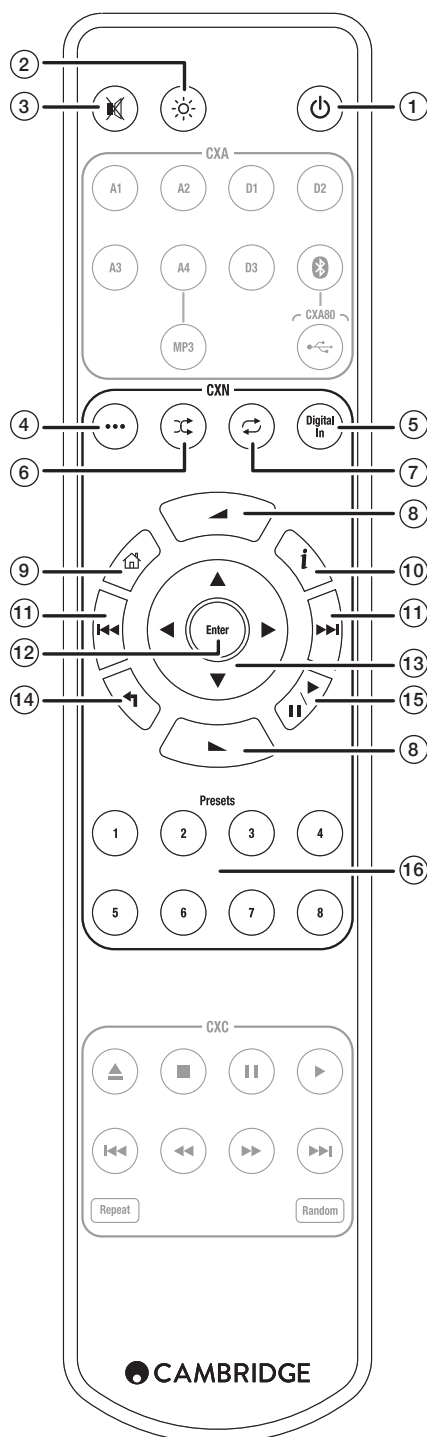
### 13. Navigation

### 14. Return

### 15. Play/Pause

### 16. Presets

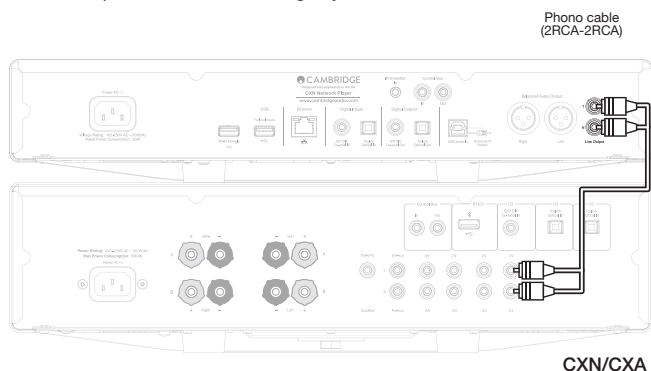
Recalls stored 1 – 8 presets.



## Getting connected

### Basic audio connections

Switch the power off before making any connections.



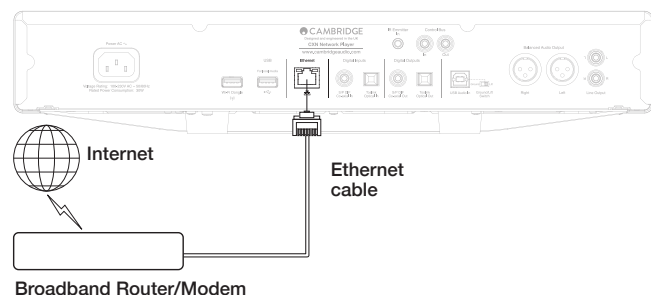
### Network connections

To use the UPnP media sharing feature, you will need either a wired Ethernet or Wi-Fi connection to your network

To use internet radio, Streaming Services or to receive product software updates you will also need a broadband internet connection.

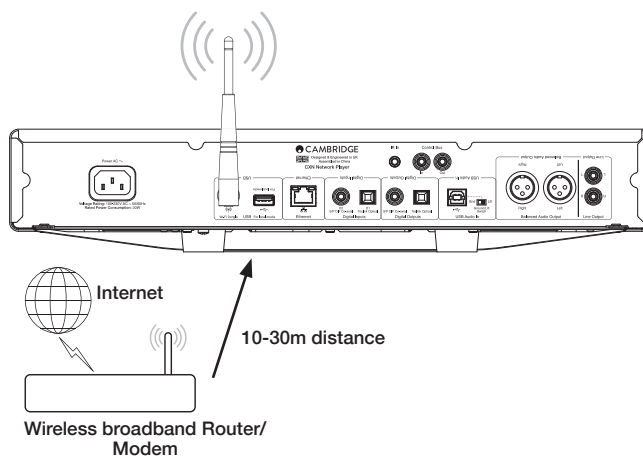
Use a wired connection for seamless playback of high resolution 24-bit/176kHz and 24-bit/192kHz files.

#### Connecting to a wired network



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

### Connecting to a wireless network



Connect the supplied wireless dongle to the correct USB input on the rear of CXN – 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 'CXN'.

Alternatively, connect the CXN directly to the Wi-Fi network: Select your Wi-Fi network and then enter your password.

**Note:** Wi-Fi network passwords are case sensitive.

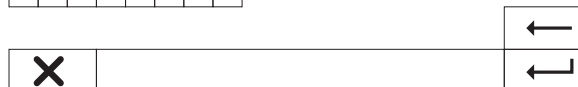
For further information on CXN network settings please see the "Settings >> Network" section later in this manual.

### Character entry

This is typically for:

- Wi-Fi network password.
- Searching for radio stations and content on UPnP servers.
- Customising the CXN's "friendly" name and digital input names.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z	0	1	2	3	4	5	6	7	8	9	<		=	>
+	-	_	!	?	@	#	\$	%	^	&	*	:	;	'	"	.	,	\	
/	[	]	{	}	(	)	~												



To enter text:

1. Use the front panel rotary encoder to scroll through each symbol.
  2. Using the IR remote control, you can navigate horizontally and vertically.
  3. Press Enter on the front panel or IR remote to select the highlighted character.
- ← deletes the last character selected (equivalent to the ■ button on the front panel or IR remote control).
  - ✕ cancels the text entry process.
  - submits the entered text.

## Operating instructions

### Music library

The Music Library menu item lists all found UPnP servers and USB media devices.

There are many suitable UPnP server software packages available for PC and Mac. Stand-alone servers and Network Attached Storage (NAS) devices with built in UPnP server capabilities are also available. Please see the set-up guides on our website at: [www.cambridgeaudio.com/networksetup](http://www.cambridgeaudio.com/networksetup)

**Note:** When using a UPnP server to share your media, the menu structure, search and selection criteria are determined by that server, not the CXN.

The CXN does not scan entire USB storage devices to build an artist/track database. It is therefore recommended that audio files are stored in a structured way by artist and album to facilitate locating tracks.

### Playing tracks and adding to the queue

#### Add individual tracks

Selecting an individual track will show the following menu:

- PLAY NOW
- PLAY NEXT
- ADD TO QUEUE – Add the track to the end of the queue.
- REPLACE QUEUE – Remove all queue items and replace with the new track.

### Viewing the queue

To view the queue at any time press the '\*\*\*' (more) button.

You can jump playback to any point in the queue by navigating up/down the list and pressing Enter.

### Editing the queue

Tracks can be removed from the queue by highlighting them with the navigator and pressing the Stop button.

To clear an entire queue, navigate to the bottom of the queue to highlight [Clear Queue] and press Enter.

**Note:** Switching the CXN into standby will delete the queue, unless Standby Mode is set to 'Network Standby'.

### The 'Now Playing' screen

Pressing the 'i' button will cycle through:

- Combination of track/stream info plus album/station art.
- Just album/station art.
- Just track/stream info.

Album art and radio station logos may also be displayed if available. For USB Media the Album art needs to be in the same folder as the track.

### Album art file format

Album art images are supported in .png and .jpg file formats only.

Images can have any name, but images named Folder.png or Folder.jpg take precedence.

Images embedded into tracks are not supported.

### Playlists

The CXN supports various playlist formats:

- ASX (Microsoft® playlist format)
- M3U
- PLS

For permanent storage of favourite media selections it is recommended to use suitable software to create playlists. These can then be accessed by the CXN from USB storage devices or UPnP servers that support playlist serving.

It is not currently possible to save playlists created on the CXN.

## Inputs

### USB audio

The CXN USB Audio input is intended to connect directly to a PC or Mac computer.

The default CXN configuration is USB Audio profile 1.0 which works with nearly all common operating systems and computer types without needing additional drivers. In this configuration sample rates from 16-bit/44.1kHz to 24-bit/96kHz are supported.

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

### D1-D2


The two digital inputs are capable of receiving stereo PCM audio with sample rates up to 24-bit/192kHz.

### Bluetooth

The optional Cambridge Audio BT100 Bluetooth dongle can be connected into any available USB socket.

### Spotify connect

Spotify lets you listen to millions of songs – the artists you love, the latest hits and discoveries just for you. If you are a Spotify Premium user, you can control your CXN using the Spotify app.

1. Connect your CXN to the same Wi-Fi network as your phone or tablet running the Spotify app.
2. Open the Spotify app, and play any song.
3. Tap the song image in the bottom left of the screen.
4. Tap the Connect icon .
5. Pick your CXN from the list.

For information on how to set up and use Spotify Connect please visit [www.spotify.com/connect](http://www.spotify.com/connect).

The Spotify Software is subject to third party licenses found here: [www.spotify.com/connect/third-party-licenses](http://www.spotify.com/connect/third-party-licenses).

## Settings

### Get registration key

Used to generate a unique temporary code, allowing the CXN to be registered with your Stream Magic website account at [www.stream-magic.com](http://www.stream-magic.com).

### Network

Set-up Wi-Fi: Initiates Wi-Fi setup.

Enter network name: For manual entry of the network name.

Current config: Displays current network settings.

Edit config:

- Auto (DHCP).
  - YES (recommended).
  - NO – settings are manually entered.

If 'NO' is selected, you will need to enter (using the navigator and select buttons) the CXN's IP address, Network mask, Gateway address and DNS server(s).

Wi-Fi strength

Signal warning: On-screen warning of low Wi-Fi signal strength.

Wi-Fi region: Select the region that closest matches your location.

Wired/Wi-Fi:

- Auto (default).
- Wired only.
- Wi-Fi only.

## Firmware

- Check for updates and display version number.

## Display brightness

## Device name

Rename the CXN.

## Audio

- Digital pre-amp mode.
  - On – enables volume control.
  - Off – fixed output.
  - Balance – only available if Digital Pre-amp Mode = On.
- USB audio class.
  - 1.0 – for greatest compatibility with computers.
  - 2.0 – allows high sample rate audio (up to 24-bit/192kHz sample rate). You may need to download and install the Cambridge Audio USB Audio class 2.0 driver.

For further information on USB Audio: [www.cambridgeaudio.com/USB-audio](http://www.cambridgeaudio.com/USB-audio).

## Remote control

Used when there is a clash with other products.

- CXN Series handset (24) (default).
- CXN Series handset (28) – alternate set IR remote control commands.
- No IR control – disables the CXN from responding to IR remote control commands.

To use the alternate set IR remote control commands, both the CXN and the CXN IR remote control handset must be reconfigured:

- CXN – select CXN Series handset (28) in the above menu.
- Remote control – perform the following steps:

Remove the batteries from the CXN IR remote control.  
Press and hold the 'Power' button while reinserting the batteries.

**Note:** To restore the default CXN IR remote control command set, remove and reinstall the batteries without pressing any buttons.

## Language

## Standby Mode

- Network Standby – network connections remain active and the Cambridge Connect app can turn on the CXN.
- ECO mode – all audio, network and control circuits are shut down.

## Automatic Power-down

Sets the time before entering Standby Mode after inactivity.

## Edit Input Names

Allows you to customise the names of the digital inputs; USB Audio and D1 – D2.

## Factory reset

Restores the CXN to the default factory shipping state.

**Note:** Factory reset will delete all Wi-Fi networks and keys from memory; however Presets associated with your Stream Magic website account remain.

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