



Congratulations on your purchase of Camden EC2 and thank you for selecting Cranborne Audio to be a part of your music creation process.

Camden EC2 is an evolution of our multi Award-Winning Camden 500 Preamp technology developed into a 19", rackmount format. From the beginning, we promised ourselves that Camden EC2 would be more than just two Camden 500's in a box. We set out to analyse, critique, and improve every last detail of Camden EC2's preamp design whilst packing it into a complete recording and playback solution that would add much more functionality to any studio with advanced, local monitoring and our C.A.S.T. cable management system.

The Camden preamps themselves are capable of being the most delicate and natural preamps you've ever heard but at the turn of a dial, can transform into the fattest, warmest, and most characterful preamp in your arsenal. To partner the preamps, we added two discrete line mixers with reference-grade headphone amplifiers that allow you to monitor the local preamps directly during mic placement or blend live sources with pre-recorded sources during tracking.

Cranborne Audio, for us, means so much more than metal boxes with components in them. These are our labours of love that embody and demonstrate our demand for excellence. By distilling what matters and putting our soul into these tools, we hope to help other people make magic and express themselves, and in some way, become part of our Cranborne Audio family.

So welcome to our family. We care for our family. And we care about making your tracks, albums, scores sound as good as they should.

A handwritten signature in black ink, appearing to read 'SK' with a flourish at the end.

Sean Karpowicz

A handwritten signature in black ink, appearing to read 'E. Holmes' with a long horizontal line underneath.

Edward Holmes

A handwritten signature in black ink, appearing to read 'E. Thomas' with a long horizontal line underneath.

Elliott Thomas

A handwritten signature in black ink, appearing to read 'Andrew Pat' with a long horizontal line underneath.

Andrew Pat

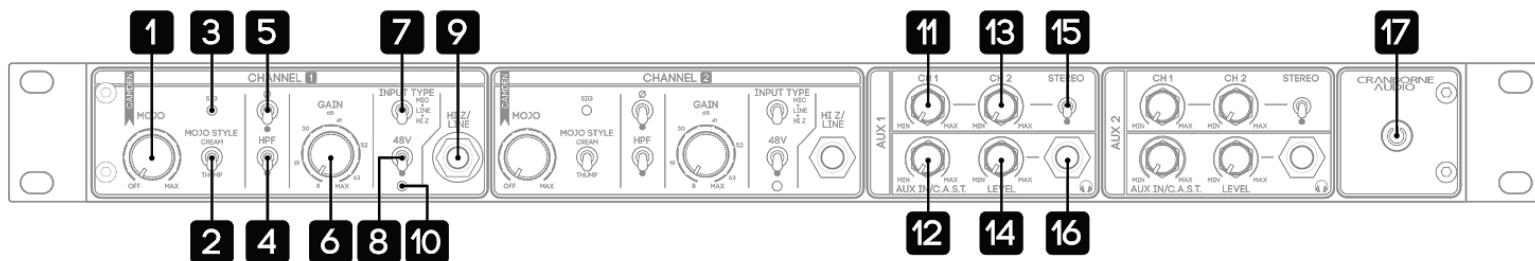
Camden EC2 Quick Start Guide

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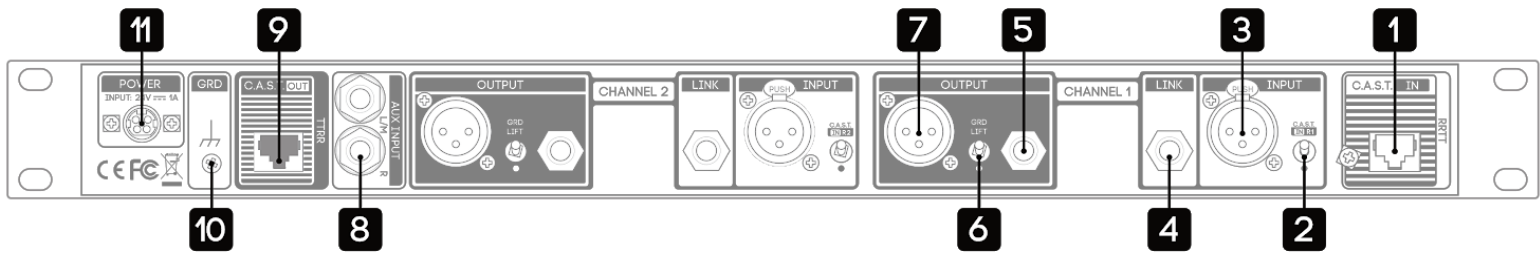
Please download the full User Manual from the Camden EC2 product page on the Cranborne Audio website

www.cranborne-audio.com

Controls and Connectors



<p>[1] Mojo Control: Adjusts the level of Mojo analogue saturation. Bypasses Mojo and clicks off when it's turned fully anti-clockwise.</p>	<p>[10] 48v Status Indicator: Bicolour LED that displays 48v status. <u>Off</u> = 48v Off, voltage fully discharged <u>Amber</u> = 48v voltage charging/discharging <u>Red</u> = 48v fully charged</p>
<p>[2] Mojo Style Switch: Toggles the Mojo style between 2 discrete styles: Thump & Cream.</p>	<p>[11] Ch1 Level Control: Adjusts the level of the Channel 1 preamp into the Aux bus.</p>
<p>[3] Signal Indicator: Bicolour LED that displays incoming signal level and clip status. <u>Blue</u> = -20dBu <u>Green</u> = -12dBu <u>Amber</u> = +21dBu <u>Red</u> = +24dBu</p>	<p>[12] Aux In/C.A.S.T. Level Control: Adjusts the level of the rear Aux Inputs and C.A.S.T. OUT RR into the Aux bus.</p>
<p>[4] HPF Switch: Engages the 80Hz High Pass (Low Cut) filter. -3dB @ 80Hz. (Switch Down = ON)</p>	<p>[13] Ch2 Level Control: Adjusts the level of the Channel 2 preamp into the Aux bus.</p>
<p>[5] Polarity Switch: Inverts the polarity of the input signal by 180°. (Switch Down = ON)</p>	<p>[14] Aux Headphone Level: Adjusts the main level of the Aux bus to the Aux Headphones output.</p>
<p>[6] Gain Control: 12 position switched pot. Adjusts the input sensitivity of the preamp from 8 to 68.5dB in 5.5dB increments.</p>	<p>[15] Stereo Pan Switch: Sets the Pan position of Ch 1 and Ch 2 to the Left and Right sides of the Aux headphone output for monitoring stereo signals. (Switch Down = ON)</p>
<p>[7] Input Type Switch: 3-way switch. Adjusts the input Impedance and pad status of the preamp Input to match the desired input type; hi-z, line, or mic.</p>	<p>[16] Aux Headphone Output: Used for connecting headphones to the Aux bus.</p>
<p>[8] 48v Switch: Engages 48v phantom power for the rear XLR input connector. (Switch Down = ON)</p>	<p>[17] Power Switch: Safely powers on and off Camden EC2. Tap to power on, press and hold to power off.</p>
<p>[9] Hi-Z/Line Input: Used to connect line or hi-z instruments directly into the preamp's front panel. Hi-z/Line input interrupts rear XLR or C.A.S.T. input connections.</p>	



<p>[1] C.A.S.T. Input: Enables I/O relocation and expansion via Cranborne Audio C.A.S.T. enabled breakout boxes.</p>	<p>[7] Preamp Output (+24dBu): Sends balanced, line-level outputs of each Preamp for connection to external converters and equipment.</p>
<p>[2] Source Switch: Toggles the input source of each preamp between C.A.S.T. Input and XLR. (Switch Down = C.A.S.T. ON)</p>	<p>[8] Aux Input: Connects analogue playback sources from external audio interfaces directly into Camden EC2's monitoring paths. Inputs are summed with the C.A.S.T. OUT RR Paths.</p>
<p>[3] Preamp Input: Connects balanced XLR analogue inputs into each Preamp. Input sensitivity varies depending on the Input Type Switch on the front of the preamp.</p>	<p>[9] C.A.S.T. Output: Enables Camden EC2 Preamp signals to be sent directly to the C.A.S.T. Inputs on another Cranborne Audio device. C.A.S.T. Out also receives the Aux Mix (inc Talkback) from the connected 500ADAT/500R8 for monitoring on Camden EC2's Aux mixers.</p>
<p>[4] Link Output: Outputs an unaffected, buffered output to connect downstream equipment such as guitar amplifiers in parallel to Camden EC2's Hi-Z and Line inputs.</p>	<p>[10] Grounding Post: Enables direct binding to chassis ground to help eliminate ground loops in specific setups.</p>
<p>[5] Preamp Output (+18dBu): Sends balanced, line-level outputs of each Preamp for connection to external converters and equipment.</p>	<p>[11] Power: Provides Camden EC2 with power via the provided external 24v 1A DC power supply. No other power supply should be used.</p>
<p>[6] Ground Lift: Lifts the ground of the preamp's XLR output to remove ground hum in applicable setups. (Switch Down = Ground Lift ON)</p>	

Package Contents

So now your Camden EC2 is out of its packaging, you're probably itching to get it powered on and making music! But before you get started, please read the sections below that will help guide you through the process of getting Camden EC2 setup, plugged in, and ready-to-record as quickly as possible!

The following items can be found in the packaging alongside Camden EC2:

- External power adapter
- IEC cable
- Allen key (2mm)
- Quickstart Guide

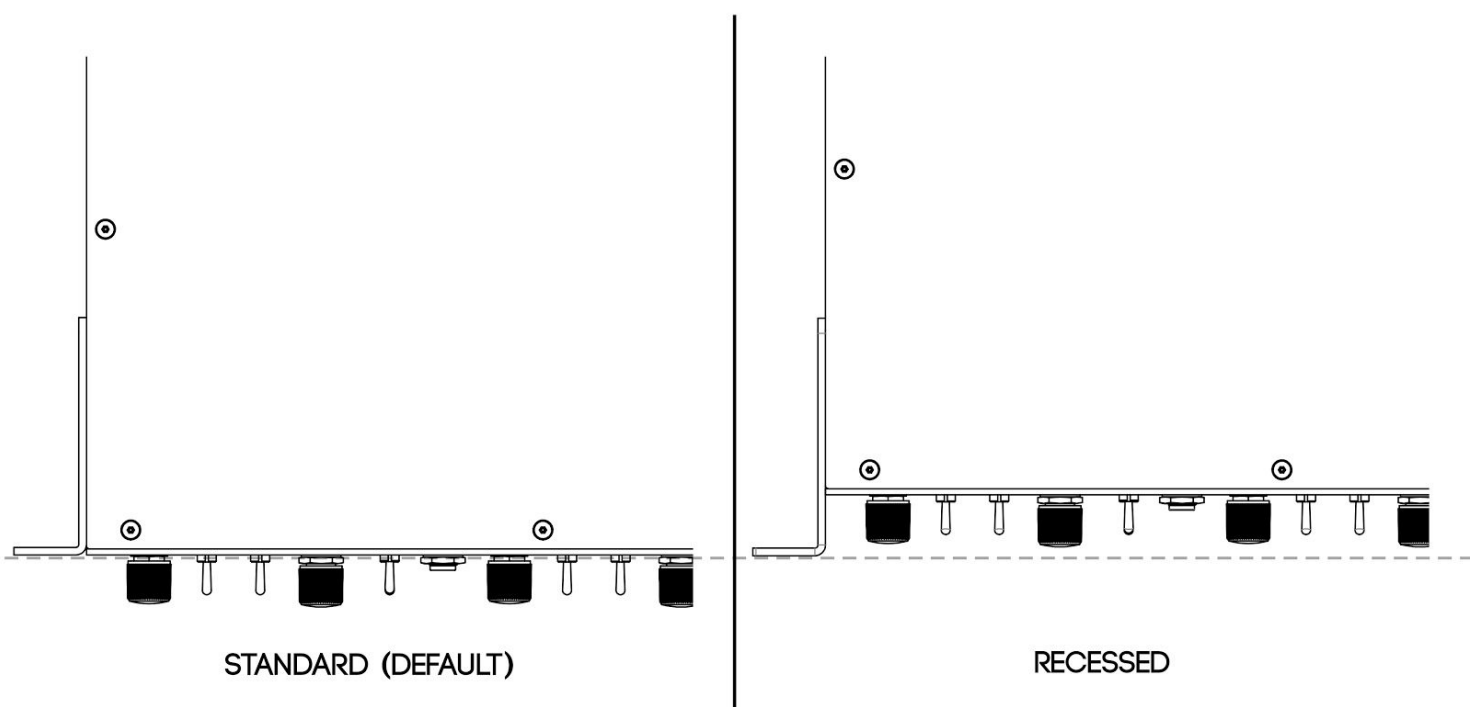
Rack-Ear Orientations

There's more to Camden EC2's rack ears than meets the eye. Camden EC2's rack ears can be repositioned in 2 ways to suit particular applications and offer greater protection during transport.

Standard (Default) - Standard rack ear configuration where the rack ears are mounted flush to the front panel of Camden EC2.

Recessed - Protective rack ear configuration where the rack ears are brought forward allowing Camden EC2 to sit backwards into the rack to protect front panel controls during travelling and location recording.

Depending on your desired use case, you will need to remove the 3 screws securing each rack ear using the supplied 2mm allen key, realign the rack ears with the correct set of holes, and fix them firmly back into place.



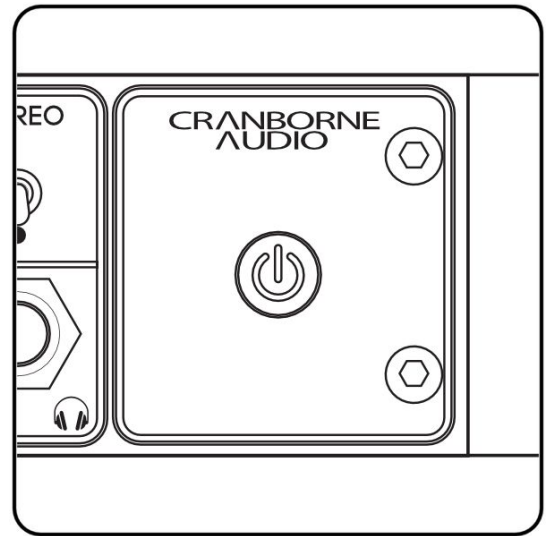
Powering Procedures

Powering On

First, make sure your speakers/audio interface is switched off and any headphones are disconnected. Briefly tap the power button located on the top right of Camden EC2's front panel. The power icon will illuminate blue and you will see the Signal and 48v Indicator LED light up in sequence.

Powering Off

First, make sure your speakers are switched off and any headphones are disconnected. Press and hold the power button for approximately 3 seconds. The power icon will deluminate and you will hear the soft 'clicking' of the relays indicating that the unit has been powered off.



Note:

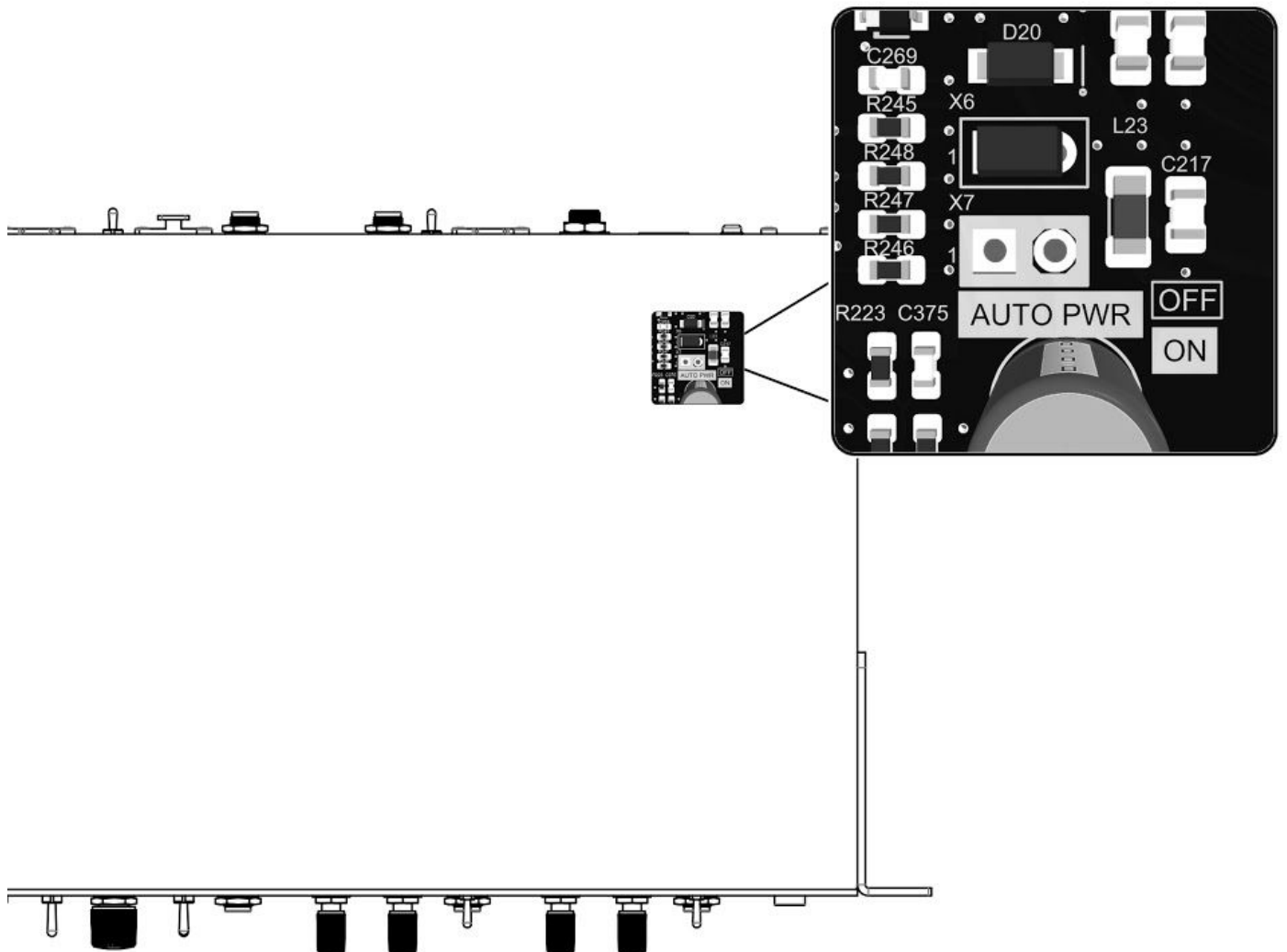
Please follow these safe powering sequences carefully in order to prevent any unwanted pops and spikes causing damage to downstream audio components including speakers and headphones.

Auto Power

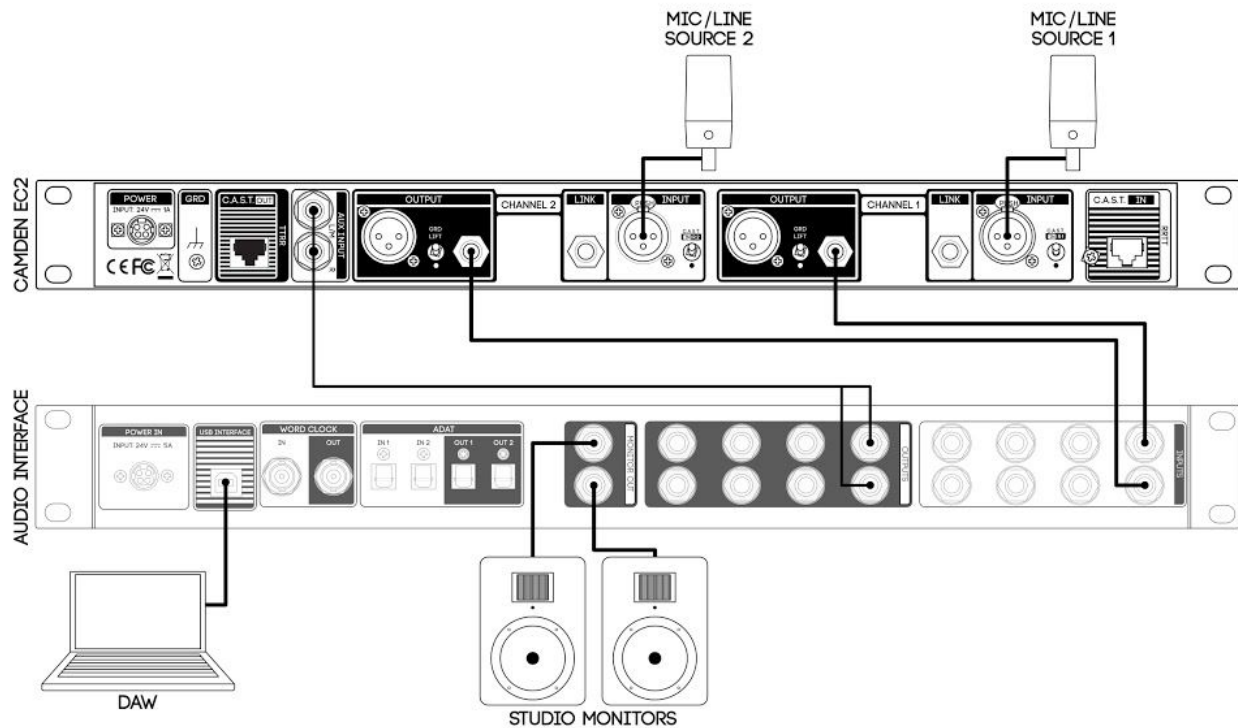
If Camden EC2 is situated in a rack full of other outboard equipment and preamps, it can be configured to automatically power on/off when power is switched on from a central location from inside the rack or a power conditioner when power is detected in its power supply.

To enable Auto Power, you will need to remove Camden EC2's top panel and move a specific jumper:

1. Ensure Camden EC2 is powered off and the power connector has been *removed*. Wait 30 seconds before continuing.
2. Place Camden EC2 on a flat surface and carefully remove the screws fixing the top panel.
3. Before reaching inside Camden EC2, firmly touch it's metal chassis to discharge any built-up static electricity.
4. Locate the 'Auto Power' label.
5. Carefully remove the black jumper from the off position and reposition it over both legs on the to bridge the connection and enable Auto Power On/Off.
6. Re-fix the top panel back onto Camden EC2's top panel.



Hardware Setup: Audio Interface



This hardware setup diagram will get Camden EC2 connected to your audio interface and ready for recording:

- 1) Connect mains power into the external PSU supplied in Camden EC2's packaging and connect the Power Connector into Camden EC2's Power Inlet **[11]**.
- 2) Connect the line outputs **[5] [7]** of Camden EC2's Preamps to two available line inputs on the Audio Interface. Use either Camden EC2's balanced 1/4" jack or XLR outputs depending on your audio interface's connections.

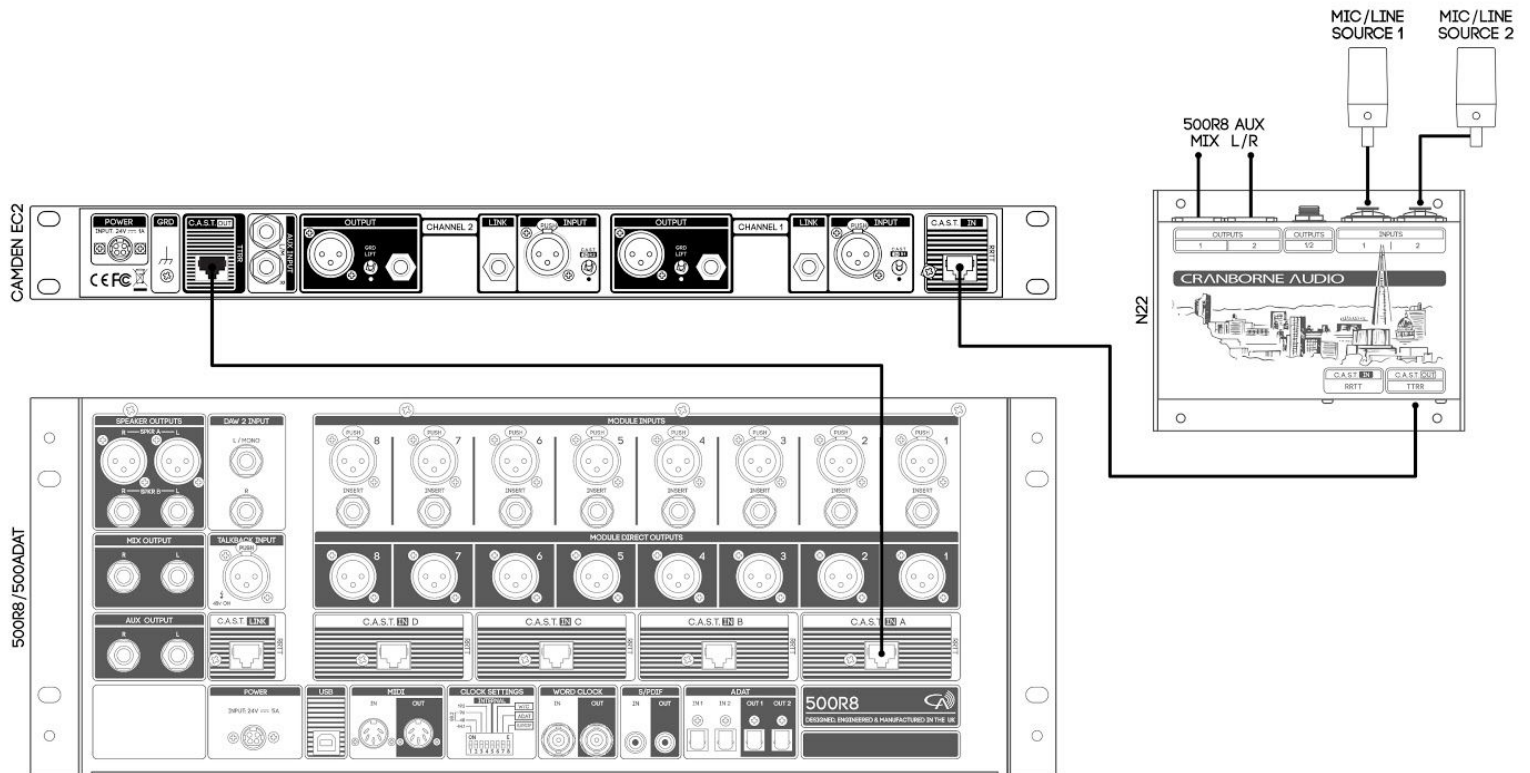
Note:

Ensure that the inputs on the Audio Interface can accept balanced, line level signals and can be switched to a +4dBu or higher reference level for best performance.

- 3) Power On Camden EC2, followed by your Audio Interface and other downstream equipment.
- 4) Connect two available line outputs on the Audio Interface to the Aux Input line inputs jacks on the rear panel of Camden EC2's.
- 5) Power On Camden EC2 using a brief tap of the Power button. Then Power On your Audio Interface.

Now connect mic/line/hi-z sources to either of Camden EC2's preamp inputs **[F9] [R3]**, apply Gain and your desired Mojo setting, and now the preamp signal will be sent out from Camden EC2 and directly into the Audio Interface's inputs for recording.

Hardware Setup: Using C.A.S.T.



This hardware setup diagram will get Camden EC2 connected within a C.A.S.T. enabled system alongside a 500R8/500ADAT and N22/N22H breakout box:

1. Connect mains power into the external PSU supplied in Camden EC2's packaging and connect the Power Connector into Camden EC2's Power Inlet **[11]**.
2. Connect Camden EC2's C.A.S.T. Output **[9]** to a C.A.S.T. Input on 500R8/500ADAT using a shielded Cat 5e, Cat 6, or Cat 7 cable.
3. Connect N22 or N22H's C.A.S.T. Output to Camden EC2's C.A.S.T. Input **[1]** using a shielded Cat 5e, Cat 6, or Cat 7 cable.
4. Power On Camden EC2, followed by 500R8/500ADAT and other downstream equipment.
5. On Camden EC2, set the rear panel source switches for Preamp channels **[2]** into its down position to enable the C.A.S.T. Input connection to be fed into its preamp

Now, connect Mic/Line sources to either of N22's inputs, apply Gain and your desired Mojo setting on Camden EC2, and now the preamp signal will be sent out from Camden EC2 and directly into 500R8's slots ready for further processing and recording.

At the same time, the Aux Mix created on 500R8/500ADAT is sent down C.A.S.T., into Camden EC2 and into the connected N22/N22H. The Aux mix can also be monitored using Camden EC2's Aux 1/Aux 2 Headphone outputs as well as the connected N22/N22H.

Safety Information

General Safety

- Read these instructions carefully
- Keep these instructions
- Heed all warnings
- Follow all instructions
- Do not use this apparatus near water
- Clean only with a dry cloth
- Do not block any ventilation openings and install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades with a third grounding prong. The wide blade or the 3rd prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories recommended by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Do NOT modify this unit, alterations may affect performance, safety and/or international compliance standards.
- Cranborne Audio does not accept liability for damage caused by maintenance, repair or modification by unauthorized personnel.

Installation notes

- When installing the apparatus either fit it into a standard 19" rack or place it on a secure level surface.
- If the unit is rack mounted, fit all rack screws.
- When rack mounting, allow a 1U gap above and below the unit for cooling.
- Ensure that no strain is placed on any cables connected to this apparatus. Ensure that all such cables are not placed where they can be stepped on, pulled, or tripped over.



WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

ATTENTION: Afin de réduire les risques de choc électrique, ne pas exposer cet appareil à l'humidité ou à la pluie.

Power Safety

- The unit is supplied with an external power supply and suitable mains lead. Only use the supplied external power supply, however if you decide to use a mains lead of your choice, bear in mind the following:
 - Refer to the rating label of the unit and always use a suitable mains cords.
 - The unit should ALWAYS be earthed with the earth on the IEC socket.
 - Please use compliant 60320 C13 TYPE SOCKET. When connecting to supply outlets ensure that appropriate sized conductors and plugs are used to suit local electrical requirements.
 - Maximum cord length should be 4.5m (15')
 - The cord should bear the approval mark of the country it is to be used.
- Connect only to an AC power source that contains a protective earthing (PE) conductor.
- Only connect unit to single phase supplies with the neutral conductor at earth potential.

GB The apparatus shall be connected to mains socket outlets with a protective earthing connection.

DEN Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.

FIN Laite on liitettävä sojamaadoituskoskettimilla varustettuun pistorasiaan.

NOR Apparatet må tilkoples jordet stikkontakt.

SWE Apparaten skall anslutas till jordat uttag.



ATTENTION: Un-earthed metal parts may be present inside the enclosure. No user serviceable parts inside - to be serviced only by qualified personnel. When servicing, disconnect all power sources before removing any panels.

CE Certification



This unit is CE compliant. Note that any cables supplied with Cranborne Audio equipment may be fitted with ferrite rings at each end. This is to comply with the current regulations and these ferrites should not be removed.

FCC Certification

- Do not modify this unit! This product, when installed as indicated in the instructions contained in the installation manual, meets FCC requirements.
- Important: this product satisfies FCC regulations when high quality shielded cables are used to connect with other equipment. Failure to use high quality shielded cables or to follow the installation instructions may cause magnetic interference appliances such as radios televisions and will void your FCC authorisation to use this product in the USA.
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

RoHS Notice

Cranborne Audio complies with and this product conforms to European Union's directive 2011/165/EU on Restrictions of Hazardous Substances (RoHS) as well as the following sections of California law which refer to RoHS, namely sections 25214.10, 25214.10.2, and 58012, Health and Safety Code Section 42475.2, Public Resources Code.

Instructions for disposal of WEEE by end users in the European Union



The symbol shown here, which is on the product or on its packaging indicates that this product must not be disposed of with other waste. It is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for recycling waste electrical equipment and electronic equipment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.



WARNING: cancer and reproductive harm - www.P65Warnings.ca.gov



Evaluation of apparatus based on altitude not exceeding 2000m. There may be some potential safety hazard if the apparatus is operated at altitude exceeding 2000m.



Evaluation of apparatus based on the temperate climate conditions only. There may be some potential safety hazard if the apparatus is operated in tropical climate conditions.

Electromagnetic Compatibility

EN 55032:2015, Class B, EN 55016-2-1:2009 A1 2011, EN 55016-2-3:2010 A1 2010, EN 55035:2017, EN 61000-4-2:2009, EN 61000-4-3:2006 A1 2008 A2 2010, EN 61000-4-4:2012, EN 61000-4-5:2014 A1 2017, EN 61000-4-6:2014, EN 6100-4-11:2004 A1 2017, EN 61000-3-2:2014, EN 61000-3-2:2013, FCC Part 15B Class B, ANSI C63.4:2014, ICES-003 Issue 6: Class B

Audio input and output ports are screened cable ports and any connections to them should be made using braid-screened cable and metal conductor shells in order to provide a low impedance connection between the cable screen and the equipment.

WARNING: Operation of this equipment in a residential environment could cause radio interference.

Environmental

- Operating Temperature: +1 to 30 degrees Celsius.
- Storage: -20 to 50 degrees Celsius.

For more information and guidance, please read your devices' User Manual or visit the Cranborne Audio website:

www.cranborne-audio.com