

Congratulations on your purchase of N8 and thank you for selecting Cranborne Audio to be a part of your music creation process.

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.

Sean Karpowicz

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Edward Holmes

Elliott Thomas

Andrew Pat

And the whole Cranborne Audio Family.





 [1] C.A.S.T. In Connector: 4 C.A.S.T. Inputs labelled A, B, C, and D for connecting C.A.S.Tenabled devices to N8 for remote I/O distribution. Each C.A.S.T. Input carries 4-channels (2 inputs, 2 outputs) of balanced, analogue audio. 	 [3] DB25 Inputs Connector: Connects the Outputs of an audio interface, mixer, or similar to the inputs of N8. Inputs 1-8 send audio <i>from</i> N8 and to the outputs of C.A.S.Tenabled devices connected to N8. DB25 connector. Tascam Wiring.
 [2] C.A.S.T. Transmit Selector Switch: Determines what audio source is sent out of N8 and to the outputs of the connected C.A.S.T. devices. Each C.A.S.T. In connector can be assigned to send out Channels 1&2 of the DB25 Input Connector, or its own discrete input paths (3&4, 5&6, or 7&8). 	 [4] DB25 Output Connector: Connects the Outputs of N8 to the Inputs of a recording device, mixer, or audio interface. Outputs 1-8 receives audio signals <i>from</i> the Inputs of C.A.S.Tenabled devices connected to N8. DB25 connector. Tascam Wiring.

C.A.S.T. CABLE REQUIREMENTS

C.A.S.T. is a system that we use to transport balanced, analogue audio using standard network cabling. Using a shielded Cat 5e, Cat 6, or Cat 7 cable instead of 4 XLRs allows you to not only reduce cable spaghetti in your studio but also distribute audio around studios or stages using affordable, readily available cabling whilst achieving the highest-quality sonic results.

Each C.A.S.T. connection on a Cranborne Audio product features unique optimisation to ensure that the maximum signal integrity is transmitted over shielded Cat 5e, Cat 6, and Cat 7 cables for distances of up to 100m(330ft) without high-end roll-off and with very low-crosstalk.

Recommendation - For best possible performance over maximum distances, we recommend using **Cat 7** cables with robust connectors to ensure that the C.A.S.T. connection is secure and will remain impervious to RF and crosstalk.

Minimum Requirement - As a minimum requirement, you can consider using Shielded Cat 5e or Cat 6 cabling provided that the cables and connectors themselves are fully shielded and are not used for distances greater than 20m.



Note:

Many Cat cables are marketed 'shielded' but feature plastic connectors on either end. Cables with incorrect shielding will not perform as expected and 48V Phantom Power will not pass through correctly. Any damage caused to the unit as a result of unsupported cabling is not covered under the Cranborne Audio warranty.

HARDWARE SETUP



The diagram above details the steps required in order to connect N8 to your recording system and C.A.S.T.-enabled devices.

- 1. Connect the DB25 <u>Output</u> Connector **[4]** to the Mic/Line <u>Inputs</u> 1-8 of your audio interface.
- 2. Connect the DB25 Input Connector **[3]** to the Line <u>Outputs</u> 1-8 of your audio interface.
- 3. Connect the C.A.S.T. Output of any C.A.S.T.-enabled device to the C.A.S.T. Input [1] of N8 using a shielded Cat 5e, Cat 6, or Cat 7 cable.
- 4. Connect your Mics or Line sources into the Inputs of the connected C.A.S.T.-enabled device.
- 5. Connect the Outputs of the C.A.S.T.-enabled device to your desired destination such as a speaker, monitor, or recording device.

Once set up, mic/line sources connected to Inputs 1/2 of the C.A.S.T. device will be sent through C.A.S.T., through N8, out of channels 1/2 on the DB25 Output Connector **[4]** and into Inputs 1/2 of your audio interface.

At the same time, Outputs 1/2 from your audio interface are sent into inputs 1/2 on N8's DB25 Input Connector **[3]**, through the same C.A.S.T. cable, and to outputs 1/2 of the connected C.A.S.T. device.

TRANSMITTER SELECT SWITCH [2]

Each C.A.S.T. port on N8 has a small toggle switch that is used to determine which audio path is sent out from N8's Inputs, through C.A.S.T., and to the outputs of the connected C.A.S.T. devices.

By default, each C.A.S.T. connection has its own set of discrete audio outputs however, by using the Transmitter Select switch **[2]**, all of the C.A.S.T. ports can be configured to receive channels 1-2 connected to the rear DB25 Input Connector **[3]**. This is perfect for talkback routing, creating zones, or any application where all C.A.S.T. devices connected to N8 must receive the same output signal.





USING N8 WITH CAMDEN EC1 and CAMDEN EC2

N8 is compatible with all C.A.S.T.-enabled devices including Camden EC1 and Camden EC2 microphone preamps. These preamps feature a tight C.A.S.T. integration that patches their preamp outputs and headphone amp mixers to N8 through a single C.A.S.T. connection rather than 4 discrete XLR cables.



The diagram above displays the connectivity that is possible using N8 and Camden EC2.

The line outputs Camden EC2's preamps are sent through its C.A.S.T. connection, Into N8's C.A.S.T. Input [1] and out of its DB25 Output Connector [4] for recording. At the same time, audio connected to the DB25 Input Connector [3] is sent through N8, through C.A.S.T. and to the headphone output of the connected Camden EC2 for advanced monitoring.

Up to 4 Camden EC1 and EC2's can be connected to a single N8 and doing so will enable you to position the preamps and their monitoring facilities around the studio to wherever they need to be.

SIGNAL OVERVIEW

Below is the full signal overview of N8 detailing how the C.A.S.T. Input ports [1] are routed to and from its DB25 Input and Output connectors [3, 4].

N8's 4 C.A.S.T. ports correspond with the DB25 connectors on its rear panel in groups of 2:

C.A.S.T. In A = Channels 1/2 on the Input \car{black} and Output \car{black} DB25's

C.A.S.T. In B = Channels 3/4 on the Input and Output DB25's

C.A.S.T. In C = Channels 5/6 on the Input and Output DB25's

C.A.S.T. In D = Channels 7/8 on the Input and Output DB25's



USING 48V WITH C.A.S.T.

All connections on N8 support 48v Phantom Power from upstream equipment for powering DI boxes or condenser microphones. C.A.S.T. and N8 itself does not generate 48V, but it is able to pass 48V power from a connected device, through the shielded Cat 5e, Cat 6, or Cat 7 cable, and directly to the XLR on the other end - just like a normal analogue snake.



In the above diagram, an N22 is connected to N8's C.A.S.T. D port as a remote stagebox. There's also an audio interface connected at the end with full 48v Phantom Power support.

- 1. Connect the DB25 Output connector **[4]** of N8 to your audio interface's preamp inputs.
- 2. Connect the C.A.S.T. Output of the N22 to the C.A.S.T. Input [1] of N8 using shielded Cat 5e, Cat 6, or Cat 7 cable.
- 3. Connect your DI box or condenser microphone to N22's Inputs.
- 4. Engage 48v from your interface/preamp and adjust the gain to match your source.

Now you can now record all signals connected to N22's input as normal as though they are connected via a single XLR cable.

OPTIONAL RACKMOUNT KITS

The Cranborne Audio rackmount kits (Sold separately) allow you to securely mount N8 into any 19" rack either by itself, or joined to another N8. There are two kits available that mount the unit into any 1u, 19" rack in two different orientations:

CA-HALFRACKKIT

CA-1UJOININGKIT







For more information on the N8 rackmount kit, please contact your Cranborne Audio dealer and use our reference part numbers above.

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, altercations 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

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.

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 Audio equipment may be need when terms and these ferrites should not be comply with the current regulations and these ferrites should not be

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 - <u>www.P65Warnings.ca.gov</u>

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 61000-4-11:2004 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.

WARNINC: 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.