

B

CIAO!!

QUAD LINE OUTPUT

BASTL INSTRUMENTS



CIAO!!

Ciao!! is a compact and performance-oriented output module built with high-quality, low-noise components and layout for top notch modular-to-line level conversion. It has 2 stereo line outputs, a headphone amplifier, and a few tricks up its sleeve. Stereo pairs A and B have dedicated level controls with signal indication and possible line-level clip warning for signals over 1 Volt. Channel A is equipped with 6.3mm balanced jack outputs to minimize noise and ensure maximum quality when delivering to the sound system. Channel B outputs through a 3.5mm stereo jack. A dedicated headphone output provides high output power and includes a selection switch for listening to either A or B channels. The normalization of inputs makes it easier to distribute signals among the outputs. The MIX switch can blend Channel B into Channel A in stereo, opening up the module performative pre-listening or simple stereo mixing.

FEATURES

- 2 stereo channels A and B
- Channel A output features 6.3mm (1/4") balanced jacks
- Channel B output features 3.5mm (1/8") stereo jack
- Dedicated level controls for each channel
- Signal indication with line-level clip detection
- Clever input normalization
- Headphone output with a channel-select switch
- Stereo MIX switch to mix Channel B into Channel A
- Back jumper for customizing the normalization path

TECHNICAL DETAILS

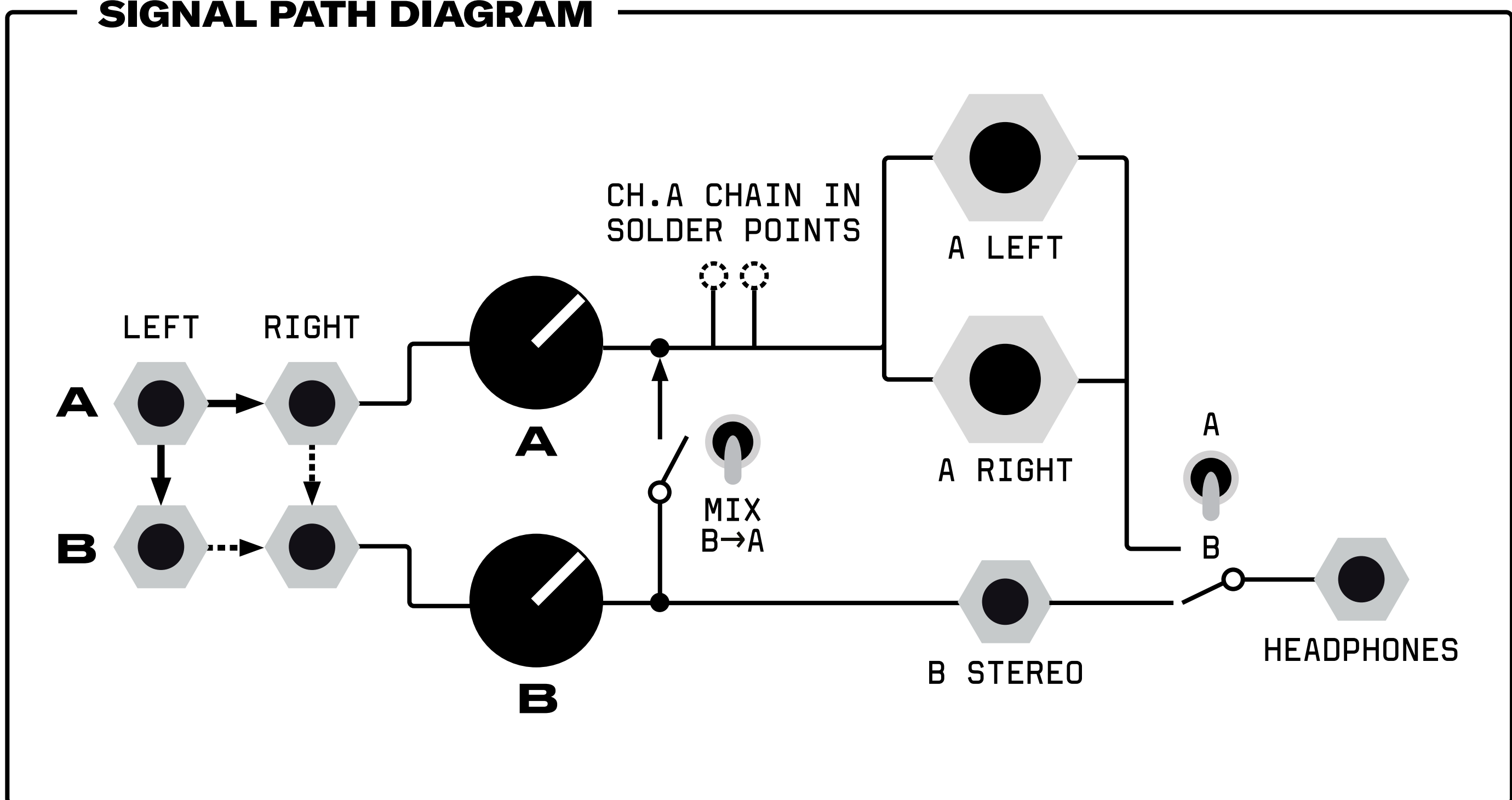
- 5 HP
- PTC fuse and diode protected 10-pin power connector
- Current consumption: <120 mA (w/o headphones), <190 mA (w/headphones to max)
- Depth (with power cable connected): 29 mm
- Input impedance: 100 k Ω
- Output impedance: 220 Ω
- Headphone impedance: 8–250 Ω

INTRODUCTION

Ciao!! has a straightforward signal flow. It takes inputs from Channels A and B, attenuates them with the level knob to line-level, and outputs them through the channel outputs. The headphone output features a switch for selecting which channel you are listening to, and there is also a MIX switch to blend Channel B into Channel A.

The inputs are cleverly normalized to make patching mono signals easy. See the [Inputs section](#) for more info.

CIAO!! SIGNAL PATH DIAGRAM



**A-RIGHT AND B-LEFT ARE ALWAYS
NORMALIZED FROM A-LEFT**



**B-RIGHT CAN BE NORMALIZED
EITHER FROM B-LEFT OR A-RIGHT**

**FOR DRAWING SIMPLIFICATION THE
SINGLE LINES REPRESENT BOTH L AND R.**

CIAO!!

QUAD LINE OUTPUT +

B POST SOUND



Ahoj

B→A



MIX



A



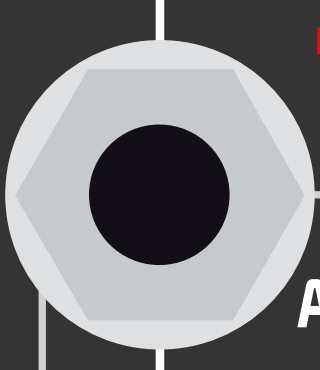
B

Bye



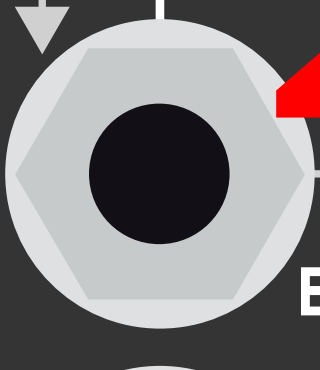
LEFT

RIGHT



1

A IN



4

B IN

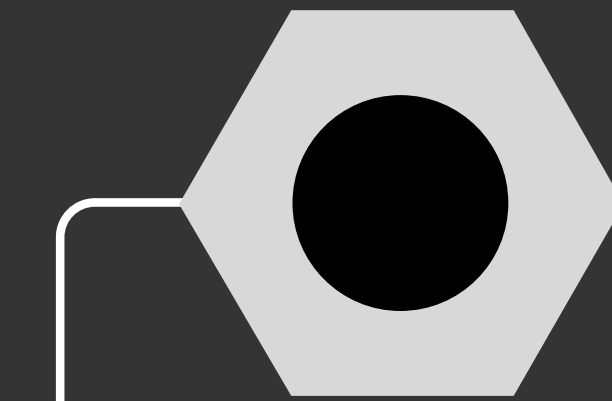


6

B ST OUT



7

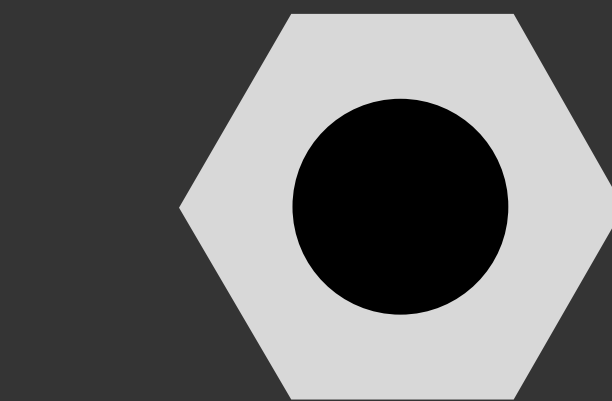


3

L

A BAL OUTS

R



BASTL

BASTL

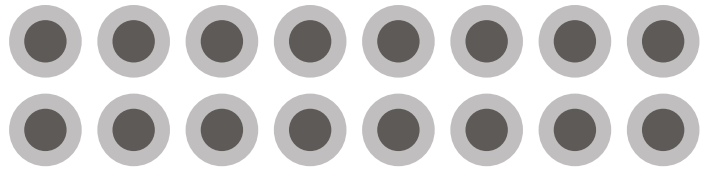


+12V



-12V

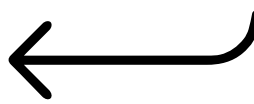
GND



CHANNEL B RIGHT
NORMALIZED FROM:

10

B-LEFT
A-RIGHT



CIAO !!

DESIGNED AND PRODUCED IN CZECH REPUBLIC

CHANNEL A
CHAIN IN

L

R

11

CIAO V2.4
BASTL-INSTRUMENTS.COM

MANUAL

1

A IN

Channel LEFT A IN is normalized to RIGHT A IN. This means that unless you connect both channels, the left Channel A will be copied into the right Channel A, resulting in a dual mono signal at the Channel A outputs.

2

A LEVEL AND INDICATION

Use the A (Ahoj) knob to set the level of both the left and right inputs of Channel A.

The green light behind the Ahoj label indicates signal presence, while the red light indicates that you are sending signals over 1 Volt, which is the standard for line-level audio. However, you are NOT clipping inside the Ciao!! module. This is just a warning that any line-level device down the signal chain might clip if not attenuated by an input level control.

3

A BAL OUTS

After being attenuated with the dedicated level knob, the left and right Channel A signals are sent to the balanced outputs A BAL OUTS. For the best noise-free experience, use balanced 6.3mm (1/4") TRS cables and balanced inputs. A BAL OUTS can also handle mono TS cables.

Note: Do not connect A BAL OUTS to stereo inputs, as it would result in an out-of-phase stereo image.

4

B INPUTS

Channel LEFT B IN is normalized to RIGHT B IN. This means that unless you connect both channels, the left Channel B will

be copied into the right Channel B, resulting in a dual mono signal at the Channel B output.

At the same time, channel LEFT A IN is also normalized to LEFT B IN, so if you do not connect anything to channel LEFT B IN, it will copy the left Channel A signal into the left Channel B input.

Note: Instead of the default normalization from LEFT B IN to RIGHT B IN, you can select RIGHT A IN as a normalization source using the jumper on the back of the module. See the [Patch examples](#) below.

5

B LEVEL

Use the B (Bye) knob to set the level of both the left and right inputs of Channel A.

The green light behind the Bye label indicates signal presence, while the red light indicates that you are sending signals over 1 Volt, which is the standard for line-level audio. However, you are NOT clipping inside the Ciao!! module. This is just a warning that any line-level device down the signal chain might clip if not attenuated by an input level control.

6

B OUTPUT

After being attenuated with the dedicated level knob, the left and right Channel B signals are sent to B ST OUT. This output is designed for use with a 3.5mm (1/8") TRS stereo cable, but can also be used with headphones.

7

HEADPHONE OUTPUT

Connect headphones to this output. Use the channel level knobs to set the loudness.

8

HEADPHONE SELECTION SWITCH

Use the switch to select the channel to which the headphone output will be listening.

9

MIX B→A SWITCH

When this switch is in the upper position, it will mix the LEFT B IN into LEFT A IN and RIGHT B IN into RIGHT A IN. This can be used for stereo mixing or for pre-listening to Channel B on headphones (with the MIX switch in the lower position).

10

NORMALIZATION JUMPER

By default, LEFT B IN is normalized to RIGHT B IN. However, in some cases, it might be useful to have RIGHT A IN normalized into RIGHT B IN instead. If that is your desired functionality, you can move the jumper into the alternate position, connecting the center and bottom pins of the jumper header.

11

MIX-IN HEADERS

For DIY heads: you can use these headers to mix in signals from other stereo modules (such as BUDDY) into Channel A. This way, you can mix a total of 3 stereo signals into Channel A.

! POWER !

Before connecting the ribbon cable to this module, disconnect your system from power! Double-check the polarity of the ribbon cable and that it is not misaligned in any direction. The red wire should match the -12V rail both on the module and the bus board.

! PLEASE MAKE SURE OF THE FOLLOWING:

- you have a standard pinout eurorack bus board
- you have +12V and -12V rails on your bus board
- the power rails are not overloaded by current

Although there are protection circuits on this device, we do not accept any responsibility for damages caused by the wrong power supply connection.

After you've connected everything, double-checked it, and closed your system (so no power lines can be touched by hand), turn on your system and test the module.

PATCH TIPS

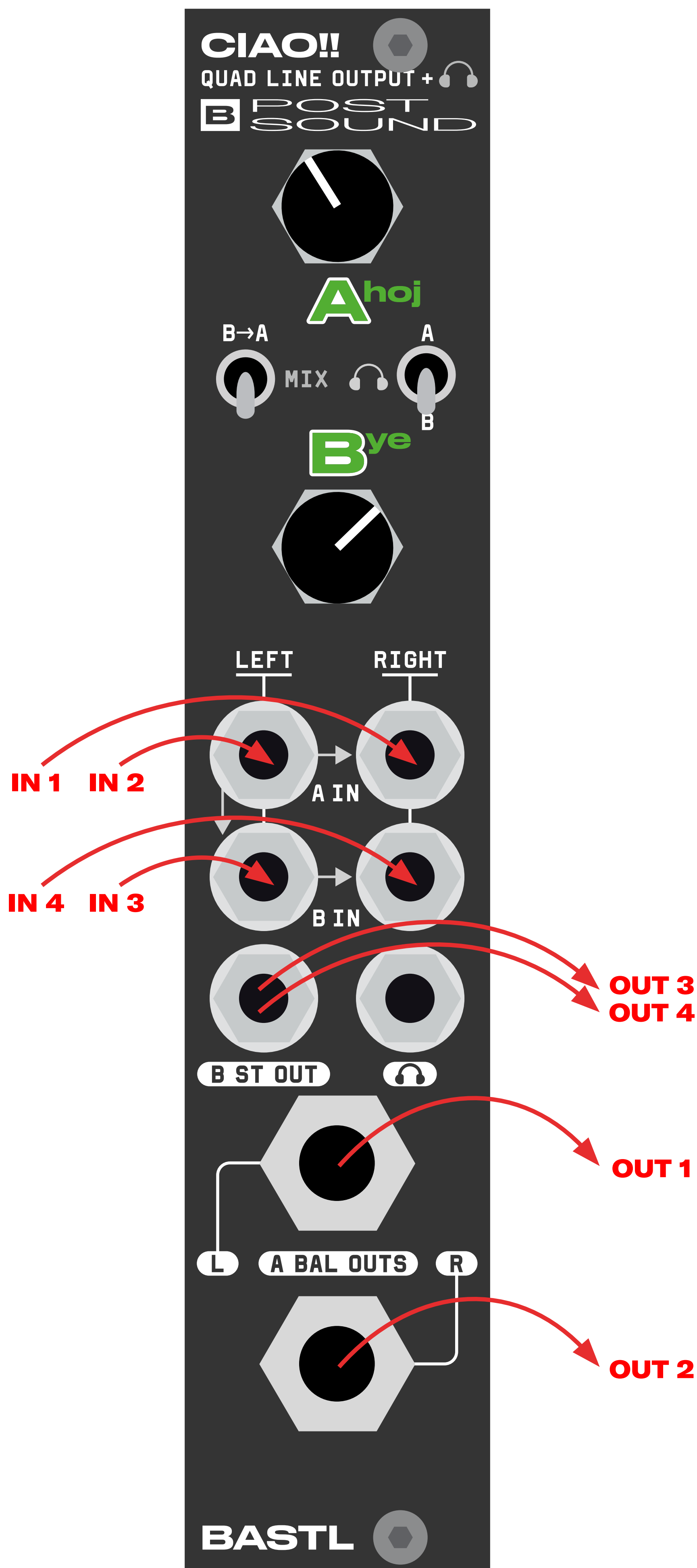
PRE-LISTEN ON HEADPHONES

You can use the MIX B→A switch in combination with the headphones switch in the B position to pre-listen to a signal plugged in the B IN on the headphones, while the speakers are connected to the A output. Turn the MIX B→A switch down to hear the B signal only in the headphones. Turn it up to mix the B signal to the main output.



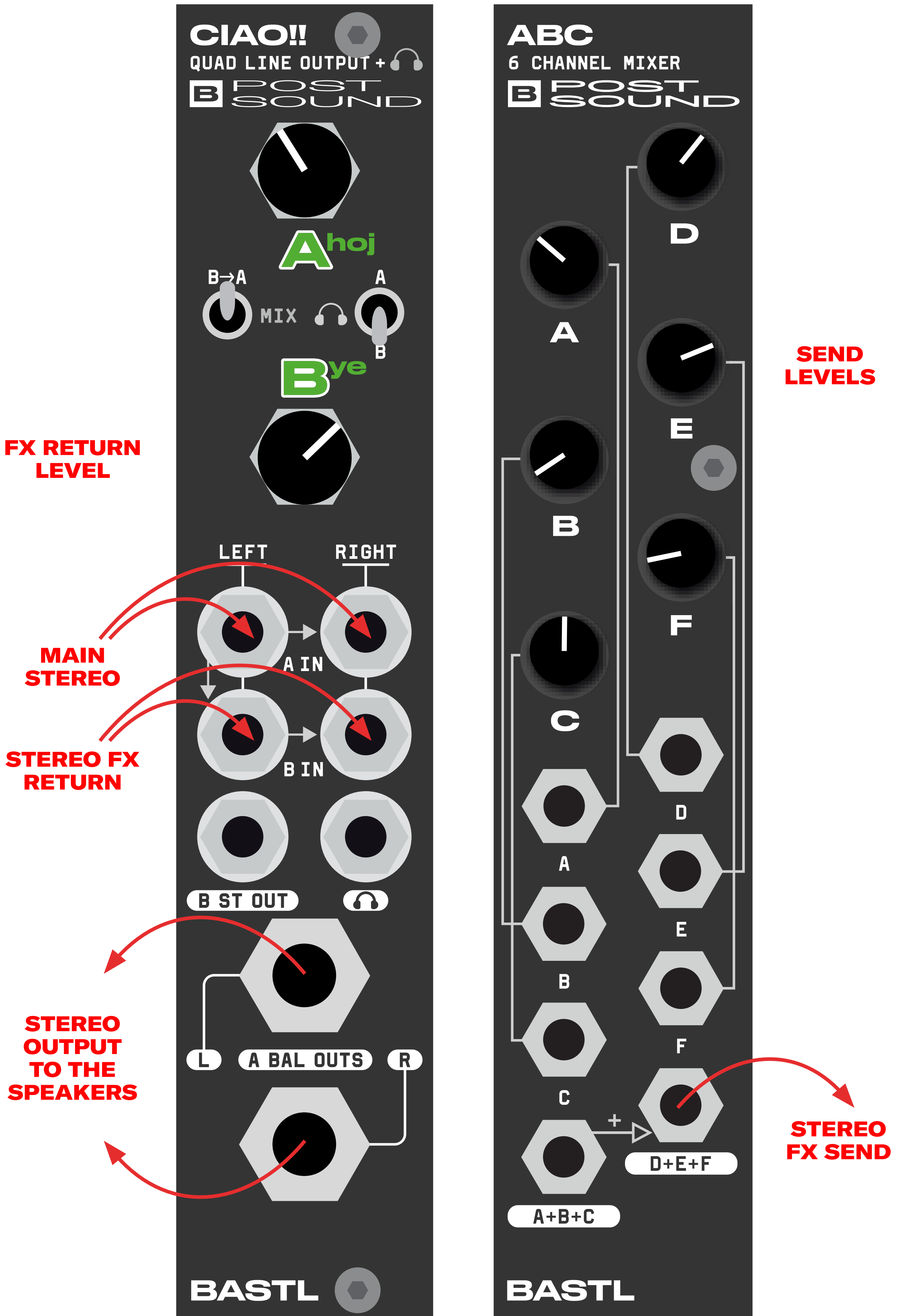
QUAD LINE OUTPUT

If you want to record 4 channels independently, simply connect all 4 signals to the 4 available inputs and use the A BAL OUTS as 2 line outputs and B ST OUT as the other 2 line outputs. Check the position of both switches.



STEREO FX RETURN

The B channel can be used to easily mix a stereo signal with the Channel A stereo signal. This is useful if you are using a sub mixer as an aux send mixer to an effects unit (either in the rack or outside). The B IN, along with the B channel level control knob, could then be used as stereo FX return track.

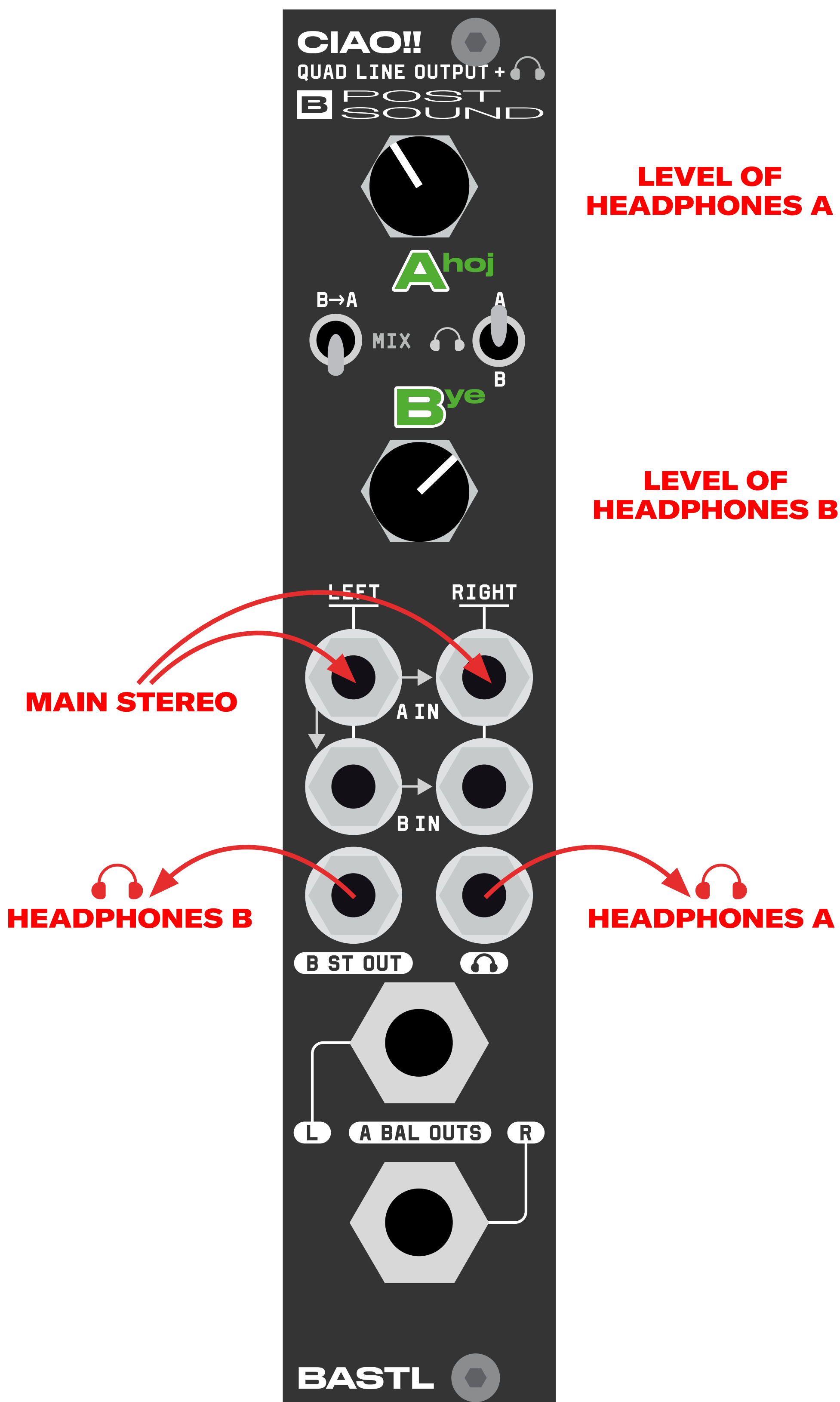


SINGLE STEREO INPUT, DUAL HEADPHONE OUTPUT

Use B ST OUT as a second headphone output for educational situations or for playing with a friend on headphones.

- Connect your stereo signal to the A IN.
- Turn the headphones switch to the A position.
- Turn the MIX B→A switch down.
- Plug one pair of headphones to the headphones output with level controlled by the A knob.
- Connect the second pair of headphones to the B ST OUT with level controlled by the B knob.

Note: The back jumper has to be set to the A-RIGHT position for the corresponding stereo normalization.



SINGLE STEREO INPUT, SEPARATE HEADPHONES AND SPEAKERS VOLUME

- Connect your stereo signal to the A IN.
- Turn the headphones switch to the B position.
- Turn the MIX B→A switch down.
- Connect the speakers to the A BAL OUTS with level controlled by the A knob.
- Plug headphones to the headphone output with level controlled by the B knob.

Note: Back jumper has to be set to the A-RIGHT position for the proper stereo normalization.



CREDITS

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MANAGEMENT: John Dinger

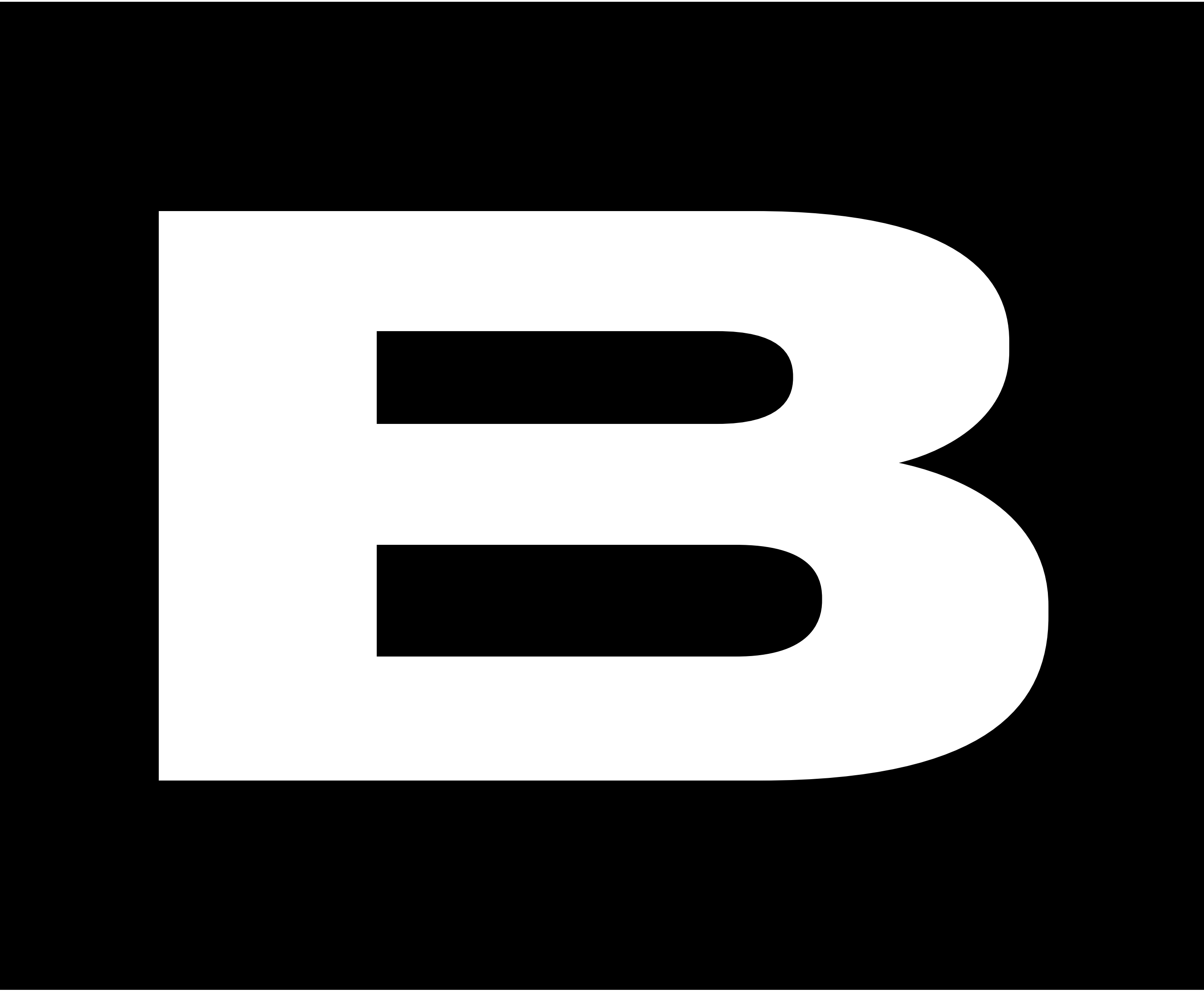
GRAPHIC DESIGN: Anymade Studio

The idea turned into reality thanks to everyone at Bastl
Instruments and thanks to the immense support of our fans.

BASTL

more info
and video tutorials

www.bastl-instruments.com

A large, stylized graphic consisting of the letters 'B' and 'E' in white, set against a solid black background. The 'B' is on the right and the 'E' is on the left, with the 'E' partially overlapping the 'B'. The letters are thick and have rounded, rounded ends, giving them a modern, geometric appearance.