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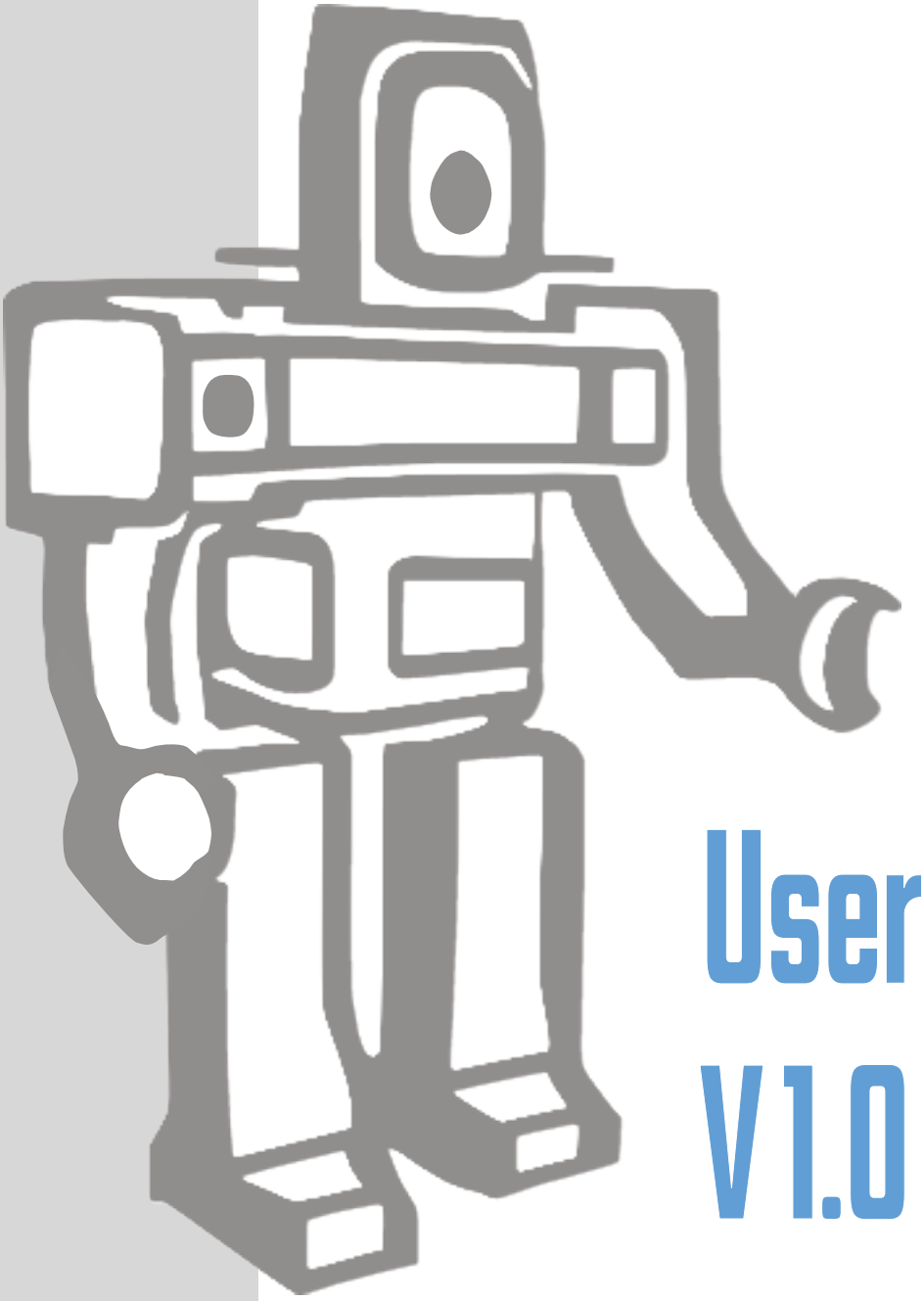
ASSEMBLER



User guide

V1.0

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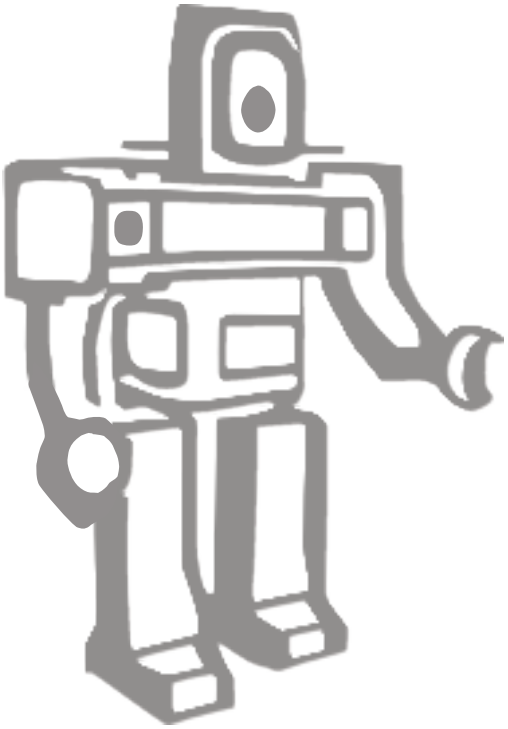

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Thank You!

I would like to take a moment to express my gratitude for your purchase of Assembler. Thank you for inviting Cre8audio and Pittsburgh Modular to be a part of your creative process. I can't wait to hear what you create.

With gratitude,

Richard Nicol
Founder | Product Designer
Pittsburgh Modular Synthesizers

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1 | Important Power Information

1.1 Read Instructions!

Please read the Cre8audio Assembler Mixer User Guide completely before use and retain for future reference.

- Only use the DC power adapter provided by Cre8audio with Assembler. Using an incorrect power adapter can cause permanent damage to Assembler and the power adapter.
- Assembler is an electronic device. Exposure to water will cause Assembler circuitry to short circuit and may cause permanent damage.
- Do not attempt to modify Assembler. Tampering with the circuitry may cause permanent damage.
- Do not place heavy objects on Assembler. The user interface is mounted on a PCB that can be damaged if stressed by excessive weight.
- Do not attempt to repair Assembler. Please contact Cre8audio regarding malfunctions of any kind.
- Cre8audio is not responsible for any damage or loss caused by improper use of Assembler.
- Do not put your hands inside heavy machinery.

1.2 Eurorack Power Cable Information

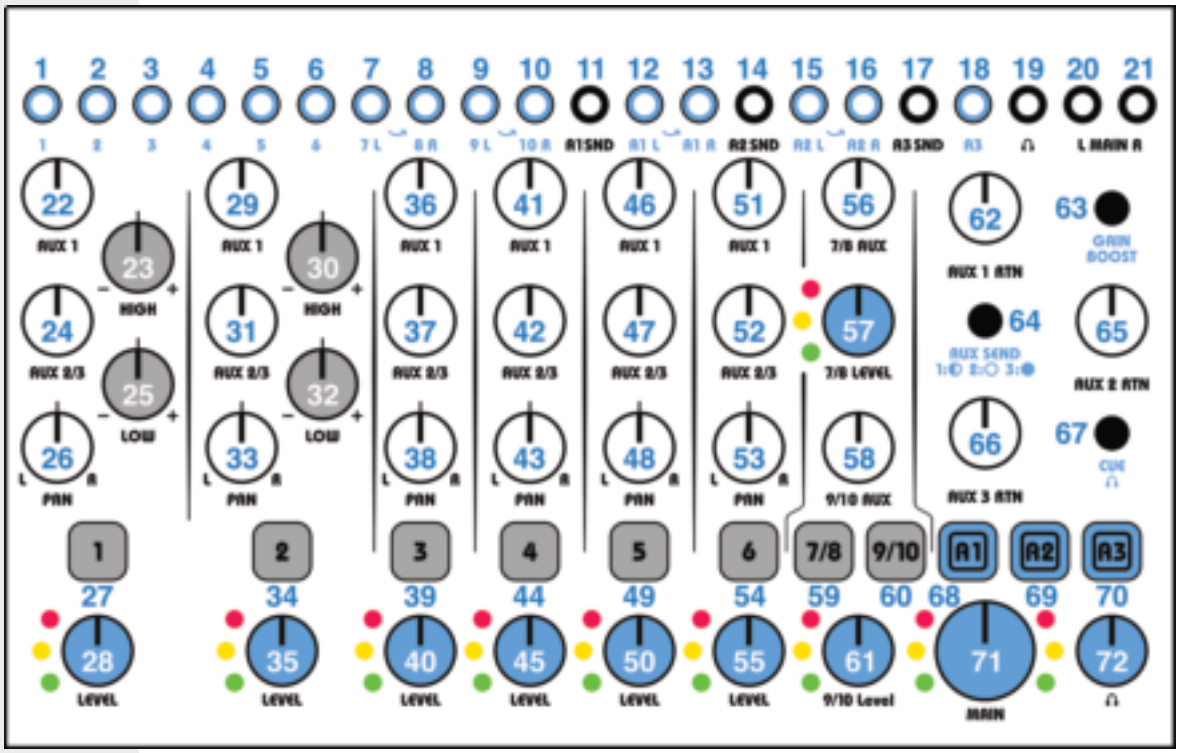
The Cre8audio Assembler Mixer is a Eurorack format synthesizer module. The module can be installed, rearranged, removed, and replaced in any compatible Eurorack case from Cre8audio, Pittsburgh Modular, or other manufacturers.

The Cre8audio Assembler Mixer uses a standard 16 pin Eurorack ribbon cable to connect the module to a bipolar +/-12v power supply. Please pay very close attention to the orientation of the ribbon cable when adding and removing modules. The stripe on the ribbon cable marks -12 volt power. This stripe needs to line up with the -12 volt pins on the power supply and the -12 volt pins on the module. The Cre8audio Assembler Mixer includes reverse polarity protection so it will not be damaged when plugged in incorrectly; however, as a general rule, failure to match up the pins correctly can result in damage to one or all the modules in a case. On Cre8audio and Pittsburgh Modular cases the positive and negative voltages are clearly labeled. On the Cre8audio Assembler Mixer module, the power header is clearly labeled and keyed to ensure a safe and proper connection.

Do NOT remove the Cre8audio Assembler Mixer module from any case while it is plugged in.

Do NOT unplug power ribbon cables from the Cre8audio Assembler Mixer or case while the case is plugged in.

2 | User Interface



1. Channel 1 Mono Input
2. Channel 2 Mono Input
3. Channel 3 Mono Input
4. Channel 4 Mono Input
5. Channel 5 Mono Input
6. Channel 6 Mono Input
7. Channel 7/8 Mono/ L Stereo Input
8. Channel 7/8 R Stereo Input
9. Channel 9/10 Mono/L Stereo Input
10. Channel 9/10 R Stereo Input
11. Aux 1 Mono Send
12. Aux 1 Left/Mono Return
13. Aux 1 Right Return
14. Aux 2 Mono Send
15. Aux 2 Left/Mono Return
16. Aux 2 Right Return
17. Aux 3 Mono Send
18. Aux 3 Mono Return
19. Stereo Headphones Output
20. Main Output Left
21. Main Output Right
22. Channel 1 Aux 1 Level
23. Channel 1 High EQ
24. Channel 1 Aux 2/3 Level
25. Channel 1 Low EQ
26. Channel 1 Pan
27. Channel 1 Control Button
28. Channel 1 Level
29. Channel 2 Aux 1 Level
30. Channel 2 High EQ
31. Channel 2 Aux 2/3 Level
32. Channel 2 Low EQ
33. Channel 2 Pan
34. Channel 2 Control Button
35. Channel 2 Level
36. Channel 3 Aux 1 Level
37. Channel 3 Aux 2/3 Level
38. Channel 3 Pan
39. Channel 3 Control Button
40. Channel 3 Level
41. Channel 4 Aux 1 Level
42. Channel 4 Aux 2/3 Level
43. Channel 4 Pan
44. Channel 4 Control Button
45. Channel 4 Level
46. Channel 5 Aux 1 Level
47. Channel 5 Aux 2/3 Level
48. Channel 5 Pan
49. Channel 5 Control Button
50. Channel 5 Level
51. Channel 6 Aux 1 Level
52. Channel 6 Aux 2/3 Level
53. Channel 6 Pan
54. Channel 6 Control Button
55. Channel 6 Level
56. Channel 7/8 Aux Level
57. Channel 7/8 Level
58. Channel 9/10 Aux Level
59. Channel 7/8 Control Button
60. Channel 9/10 Control Button
61. Channel 9/10 Level
62. Aux 1 Return Level
63. Gain Boost Selector Button
64. Aux Send Selector Button
65. Aux 2 Return Level
66. Aux 3 Return Level
67. Cue Mix Selector Button
68. Aux 1 Mute Button
69. Aux 2 Mute Button
70. Aux 3 Mute Button
71. Main L/R Output Level
72. Headphone Output Level

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3 | Assembler Overview

3.1 Overview:

Designed for hands-on control and instant creativity, the Cre8audio Assembler is a one-knob-per-function mixing powerhouse. Assembler features a set of flexible audio channel strips designed by Pittsburgh Modular to deliver warm, analog sound with an intuitive and direct interface.

3.2 Panel Labeling Conventions:

The Cre8audio Assembler uses several simple labeling conventions to make the user interface and signal flow easy to understand.

- Input jacks are labeled with **Blue**.
- Output jacks are labeled with **Black**.
- Knob functions are written in **Black**

3.3 Manual Labeling Conventions:

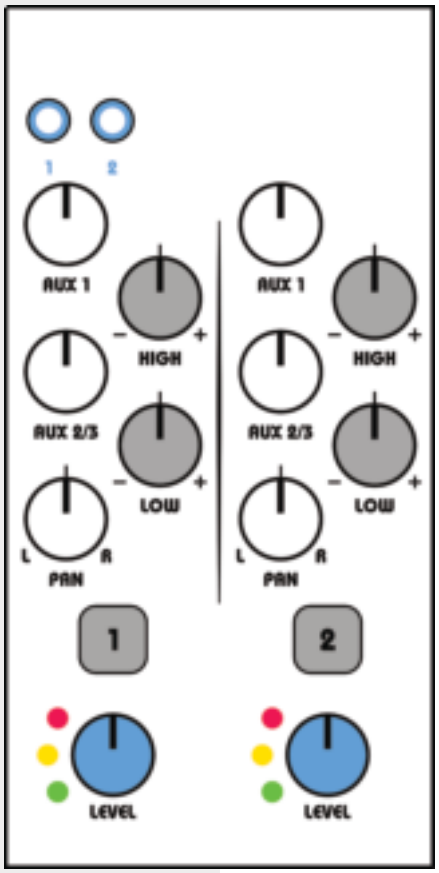
Within the manual, buttons and knobs are in bold and marked with brackets **[ ]**. For example, **[Channel 1 Level Knob]** refers to the knob marked **Level** in the Channel 1 section.

I/O Jacks are marked in bold with curly braces **{ }**.

Output jacks are labeled in **Black** for example **{Aux 1 Send}** refers to the jack labeled **Aux 1 Send** in the ***I/O Jacks*** section.

Input jacks are in bold and marked in **Blue**. For example, **{Channel 1 Input}** refers to the jack labeled **1** in the ***I/O Jacks*** section.

4 | Complex Channel Strips 1 And 2



4.1 Channel 1 and 2 Overview

Channel 1 and 2 offer the largest number of sound manipulation tools within Assembler. They contain vintage High/Low EQ. Aux 1 and Aux 2/3 attenuators, panning pot, pre-amp gain boost, mute, and headphone cue send.

[Channel Level Knob]
The Channel Level knob sets the level of the signal sent to **{Main L/R Output}** and/or **{Headphone Output}**.

[Channel Control Button]
The Channel Control Button handles multiple tasks. Mute, Gain Boost, Aux Routing, and Headphone Cue Send.

- Press to Mute / Unmute Channel **{Main L/R Output}** signal path.
  LED on = channel active.
- Press and Hold **[Gain Button]** then press **[Channel Control Button]** to enable/disable 20x gain boost.
  LED On = gain boost enabled.
- Press and Hold **[Aux Send Button]** then press **[Channel Control Button]** to select between **{Aux 2}** or **{Aux 3}** send.
  LED off for Aux 2 and LED on for Aux 3.
- Press and Hold **[Cue Mix Selector Button]** then press **[Channel Control Button]** to enable/disable sending to **{Stereo Headphones Output}**.
  LED on = sending to **{Stereo Headphones Output}** enabled.

[Channel Pan Knob]
The Channel Pan knob shifts the audio signal between the left and right channels of the **{Main L/R Output}** and/or **{Headphone Output}**.

[Channel Aux 1 Level Knob]
The Channel Aux 1 Level knob sets the level of the signal sent to **{Aux 1 Mono Send}**.

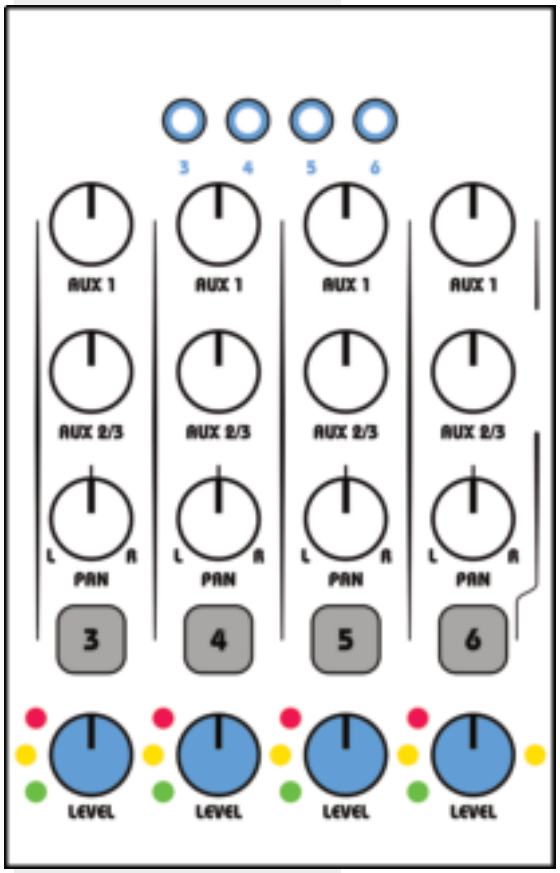
[Channel Aux 2/3 Level Knob]
The Channel Aux 2/3 Level knob sets the level of the signal sent to **{Aux 2 Mono Send}** or **{Aux 3 Mono Send}**.

[Channel High EQ Knob]
The Channel High Shelf EQ knob boosts or reduces the high frequency content by +/- 12db above 2.5 kHz.

[Channel Low EQ Knob]
The Channel Low Shelf EQ knob boosts or reduces the low frequency content by +/- 12db below 200 Hz.

[Channel Mono Input]
3.5mm. T/S mono jack audio input.

4 | Skinny Channel Strips 3 Through 6



4.2 Channel 3 through 6 Overview

Channel 3 through 6 offer a number of sound manipulation tools. They contain Aux 1 and Aux 2/3 attenuators, panning pot, pre-amp gain boost, mute, and headphone cue send.

[Channel Level Knob]
The Channel Level knob sets the level of the signal sent to **{Main L/R Output}** and/or **{Headphone Output}**.

[Channel Control Button]
The Channel Control Button handles multiple tasks. Mute, Gain Boost, Aux Routing, and Headphone Cue Send.

- Press to Mute / Unmute Channel **{Main L/R Output}** signal path.
  LED on = channel active.

- Press and Hold **[Gain Button]** then press **[Channel Control Button]** to enable/disable 20x gain boost.
  LED on = gain boost enabled.

- Press and Hold **[Aux Send Button]** then press **[Channel Control Button]** to select between **{Aux 2}** or **{Aux 3}** send.
  LED off for Aux 2 and LED on for Aux 3.

- Press and Hold **[Cue Mix Selector Button]** then press **[Channel Control Button]** to enable/disable sending to **{Stereo Headphones Output}**
  LED on = sending to **{Stereo Headphones Output}** enabled.

[Channel Pan Knob]
The Channel Pan knob shifts the audio signal between the left and right channels of the **{Main L/R Output}** and/or **{Headphone Output}**.

[Channel Aux 1 Level Knob]
The Channel Aux 1 Level knob sets the level of the signal sent to **{Aux 1 Mono Send}**.

[Channel Aux 2/3 Level Knob]
The Channel Aux 2/3 Level knob sets the level of the signal sent to **{Aux 2 Mono Send}** or **{Aux 3 Mono Send}**.

Reminder: Press and Hold **[Aux Send Button]** then press **[Channel Control Button]** to select between **{Aux 2}** or **{Aux 3}** sends.

[Channel Mono Input]
3.5mm. T/S mono jack audio input.

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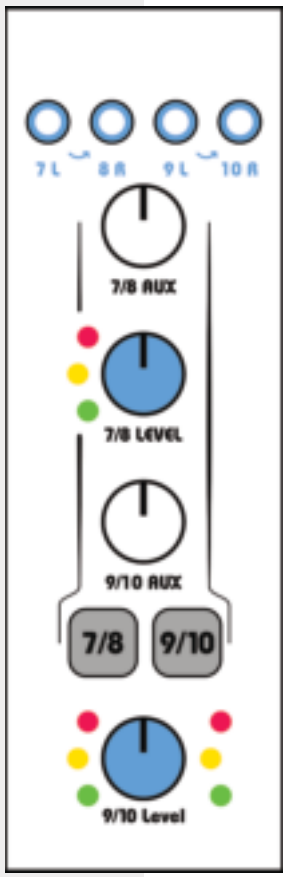
4 | Stereo Channel Strips 7/8 & 9/10



4.3 Channel 7/8 and 9/10 Overview

Channel pairs 7/8 and 9/10 can be utilized as stereo or mono channels. They contain Aux 1/2/3 attenuator, preamp gain boost, mute, and headphone cue send.

[Channel Level Knob]
The Channel Level knob sets the level of the signal sent to **{Main L/R Output}** and/or **{Headphone Output}**.

[Channel Control Button]
The Channel Control Button handles multiple tasks. Mute, Gain Boost, Aux Routing, and Headphone Cue Send.

- Press to Mute / Unmute Channel **{Main L/R Output}** signal path.
  LED on = channel active.

- Press and Hold **[Gain Button]** then press **[Channel Control Button]** to enable/disable 20x gain boost.
  LED on = gain boost enabled.

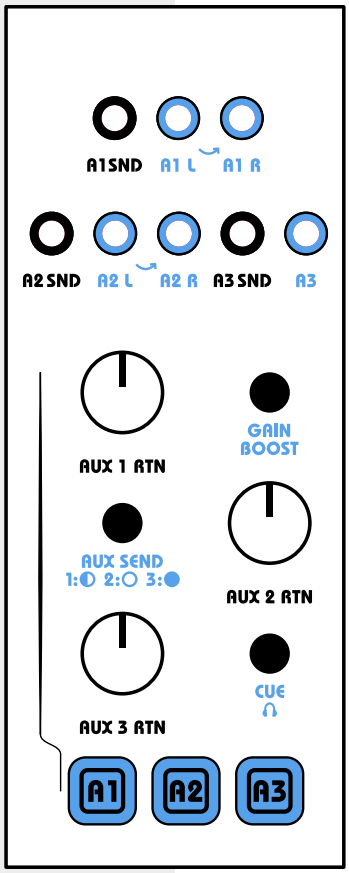
- Press and Hold **[Aux Send Button]** then press **[Channel Control Button]** to select between **{Aux 1}**, **{Aux 2}.** or **{Aux 3}** sends.
  LED blinking for Aux 1, LED off for Aux 2 and LED on for Aux 3.

- Press and Hold **[Cue Mix Selector Button]** then press **[Channel Control Button]** to enable/disable sending to **{Stereo Headphones Output}**.
  LED on = sending to **{Stereo Headphones Output}** enabled.

[Channel Aux 1/2/3 Level Knob]
The Channel Aux 1/2/3 Level knob sets the level of the signal sent to **{Aux 1 Mono Send}**, **{Aux 2 Mono Send}.** or **{Aux 3 Mono Send}**.
Reminder: Press and Hold **[Aux Send Button]** then press **[Channel Control Button]** to select between **{Aux 1}**, **{Aux 2}.** or **{Aux 3}** sends.

[Channel Mono Inputs]
3.5mm. T/S mono jack audio input. The left input jack is internally connected to the right input jack. This allows the stereo channels to be used with mono signals.

4 | Aux Channels



4.4 Aux Channels Overview

Auxiliary Channels are flexible enough to work with eurorack format effects, guitar effects pedals, or as sub mixes. The Aux returns offer up to 2.7x gain to boost lower level signals or to overdrive eurorack signal levels.

Auxiliary Channels 1 and 2 have a mono send and mono/stereo return. The returns can be used as additional mono/stereo Channel inputs if the auxiliary sends are not being used as an effects loop.

Auxiliary Channel 3 has a mono send and mono return. The return can be used as additional mono Channel input if the auxiliary send is not being used as an effects loop.

[Aux Channel Return Level Knob]
The Aux Channel Return Level knob sets the level of the signal sent to **{Main L/R Output}** and/or **{Headphone Output}**.

[Aux Channel Control Button]
The Aux Channel Control Button is used for Mute and Headphone Cue Send.

- Press to Mute / Unmute Aux Channel **{Main L/R Output}** signal path.

- The **[Gain Button]** is not used with **[Aux Channel Control Button].** The 2.7x gain boost is always available.

- Press and Hold **[Aux Send Button]** then press **[Aux Channel Control Button]** to enable/disable aux mute bypass. While aux mute bypass is active, all aux sends to the selected aux channel will continue to send out the aux channel regardless of the state of the channel mutes.

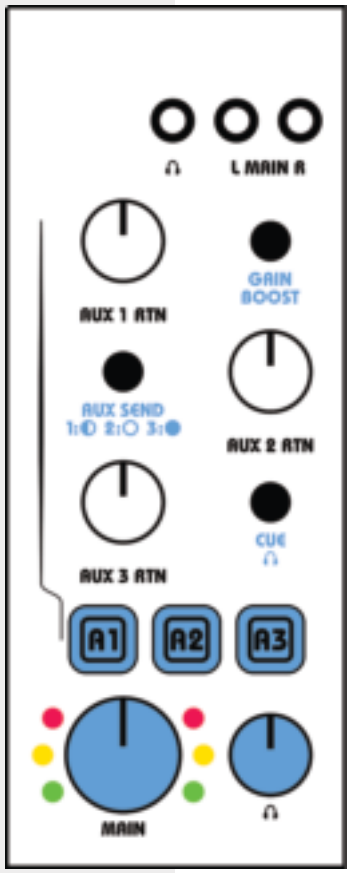
- Press and Hold **[Cue Mix Selector Button]** then press **[Aux Channel Control Button]** to enable/disable sending to **{Stereo Headphones Output}**. LED on = sending to **{Stereo Headphones Output}** enabled.

[Aux Channel 1, 2, 3 Mono Outputs]
3.5mm. T/S mono jack audio output.

[Aux Channel 1 and 2 Stereo Inputs]
3.5mm. T/S mono jack audio input. The left input jack is internally connected to the right input jack. This allows the stereo channels to be used with mono signals.

[Aux Channel 3 Mono Input]
3.5mm. T/S mono jack audio input.

4 | Outputs



4.4 Main and Headphone Outputs Overview

Assembler has both a main output channel and a headphone output channel. The main output channel is designed with a high gain range for use with eurorack systems, and the headphone output is a line level headphone amp.

[Main Level Knob]
Sets the level of the signal sent to the **{Main L/R Output}**.

[Headphone Level Knob]
Sets the level of the signal sent to the **{Headphone Output}**.

[Headphone Stereo Outputs]
3.5mm. T/R/S stereo jack audio output.

[Main Left and Right Outputs]
3.5mm. T/S mono jack audio outputs.

5 | Factory Reset

5.1 How To Reset All Factory Settings:

To perform a ***Factory Reset,*** hold the **[Aux Send Button]**,**[Gain Boost Button]**, and **[Cue Button] for three seconds.** The Assembler startup animation will play, and your Assembler will reset all settings to factory defaults.

6 | Check Installed Firmware Version

6.1 How To Check Firmware Version:

To check the installed firmware version, hold the **[Gain Button]** and **[Cue Button]**.

7 | Eurorack Specs

7.1 Eurorack Specs:

Panel size: 40hp.
Module depth: 30mm.
Power consumption: +12v 380 mA, -12v 275 mA, +5v rail not required.
Reversed power polarity protection.

Due to the complexity of this module, it requires a significant amount of power.
Please use a clean, high quality power source for optimum performance.

8 | More Information

8.1 Warranty:

Cre8audio warrants to the original purchaser that this unit is free of defects in materials and workmanship under normal use and maintenance for a period of one (1) year from the date of original purchase. The warranty applies only to registered Cre8audio users that register their Cre8audio Product(s) within fourteen (14) days of time of original purchase. To register Cre8audio Products, visit Cre8audio.com. If the unit fails within the one (1) year period, it will be repaired, or replaced, at Cre8audio's option, at no charge, when returned prepaid to the Cre8audio Technical Service Center with proof of purchase – the sales receipt may be used for this purpose. Installation labor is not covered under this warranty.

Cre8audio reserves the right to change the method by which Cre8audio may provide warranty service, and any Cre8audio Product's eligibility to receive a particular method of service. Service will be limited to the options available in the country where service is requested. Service options, parts availability and response times may vary according to country. The original purchaser will be responsible for all shipping and handling charges. Customers that seek service in a country that is not the country of purchase must comply with all applicable import and export laws and regulations and be responsible for all custom duties, V.A.T. and other associated taxes and charges. For international service, Cre8audio may repair or replace Cre8audio Products and parts with comparable Cre8audio Products and parts that comply with local standards.

All replacement parts, whether new or re-manufactured, assume as their warranty period for only the remaining time of this warranty. This warranty does not apply to damage caused by improper use, accident, abuse, improper voltage service, fire, flood, lightning, or other acts of God, or if the product was altered or repaired by anyone other than Cre8audio Technical Service Center. Consequential and incidental damages are not recoverable under this warranty.

Some regions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply. This warranty gives you specific legal rights, and you may also have other rights, which vary by state and country No portion of this warranty may be copied or duplicated without the expressed written permission of Cre8audio. THIS WARRANTY IS NOT TRANSFERABLE.

8.2 Service and Contact Information:

Please contact us for service or other information related to Assembler or any other Cre8audio product. https://www.cre8audio.com/supportticket