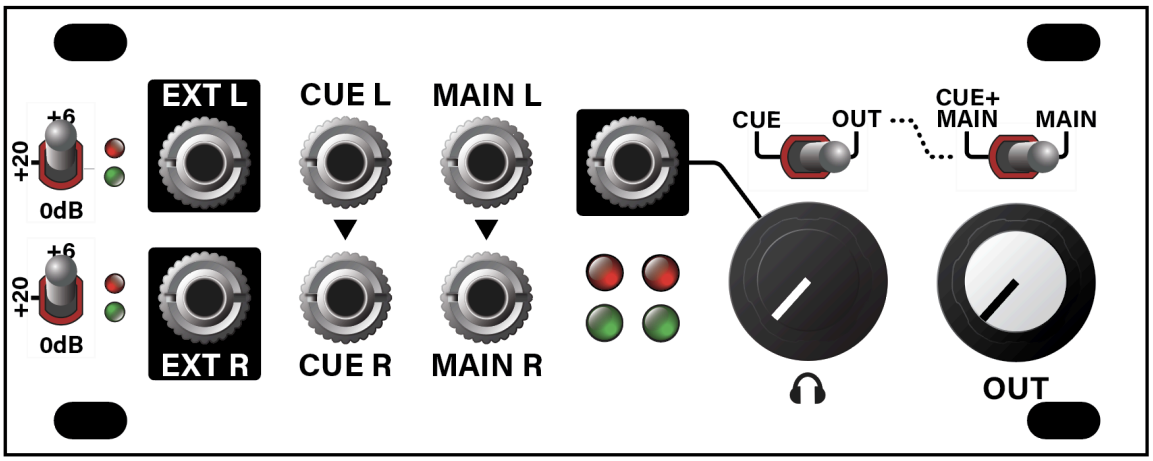
intellijel

Stereo I/O 1U

Complete Audio I/O for Intellijel Cases & Modules



Manual (English)
Revision: 2025.12.22

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COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Intellijel Designs, Inc. could void the user's authority to operate the equipment.

Any digital equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the 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.

This device meets the requirements of the following standards and directives:

EMC: 2014/30/EU
EN55032:2015 ; EN55103-2:2009 (EN55024) ; EN61000-3-2 ; EN61000-3-3

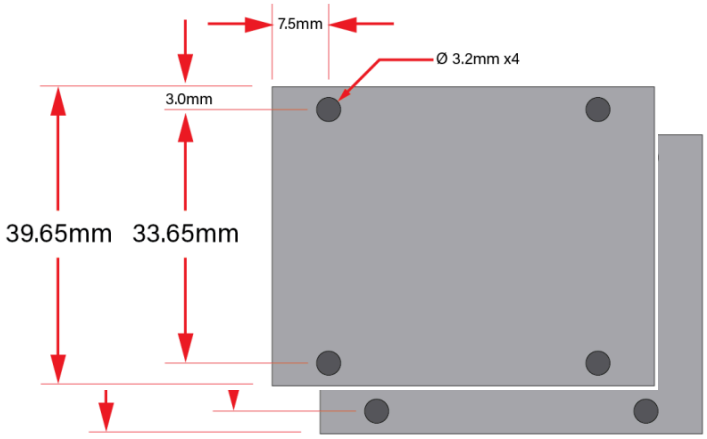
Low Voltage: 2014/35/EU
EN 60065:2002+A1:2006+A11:2008+A2:2010+A12:2011

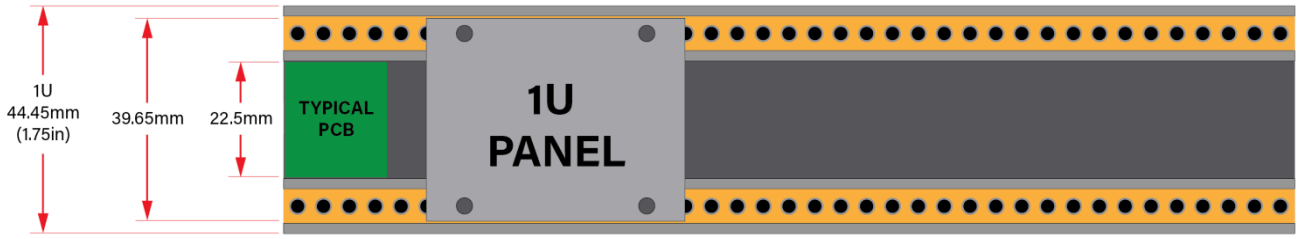
RoHS2: 2011/65/EU

WEEE: 2012/19/EU

INSTALLATION

This module is designed for use within an Intellijel-standard 1U row, such as those contained within the Intellijel 4U, 7U, and Palette Eurorack cases. Intellijel's 1U specification is derived from the Eurorack mechanical specification set by Doepfer, which is designed to support the use of lipped rails within industry-standard rack heights.





Before You Start

Intellijel Eurorack modules are designed to be used with a Eurorack-compatible case and power supply. We recommend you use Intellijel cases and power supplies.

Before installing a new module in your case, you must ensure your power supply has a free power header and sufficient available capacity to power the module:

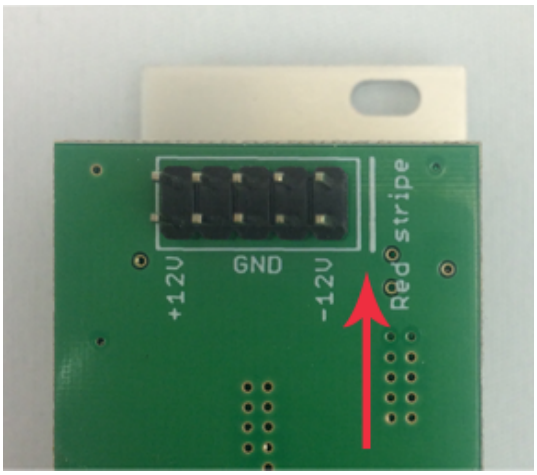
- Sum up the specified +12V current draw for all modules, including the new one. Do the same for the -12 V and +5V current draw. The current draw will be specified in the manufacturer's technical specifications for each module.
- Compare each of the sums to the specifications for your case's power supply.
- Only proceed with installation if none of the values exceeds the power supply's specifications. Otherwise, you must remove modules to free up capacity or upgrade your power supply.

You will also need to ensure your case has enough free space (hp) to fit the new module. To prevent screws or other debris from falling into the case and shorting any electrical contacts, do not leave gaps between adjacent modules, and cover all unused areas with blank panels. Similarly, do not use open frames or any other enclosure that exposes the backside of any module or the power distribution board.

You can use a tool like ModularGrid to assist in your planning. Failure to adequately power your modules may result in damage to your modules or power supply. If you are unsure, please contact us before proceeding.

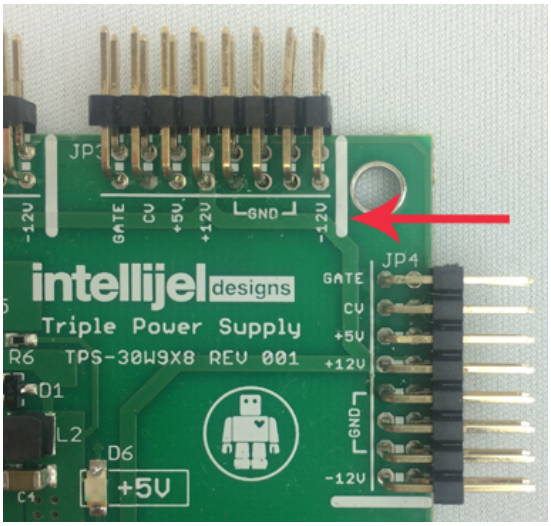
Installing Your Module

When installing or removing a module from your case always turn off the power to the case and disconnect the power cable. Failure to do so may result in serious injury or equipment damage.



Ensure the 10-pin connector on the power cable is connected correctly to the module before proceeding. The red stripe on the cable must line up with the -12V pins on the module's power connector. The pins are indicated with the label -12V, a white stripe next to the connector, the words "red stripe", or some combination of those indicators. On Intellijel power supplies the pins are labelled with the label "-12V" and a thick white stripe. Sometimes the connectors are shrouded, ensuring the cable can only be oriented in one direction.

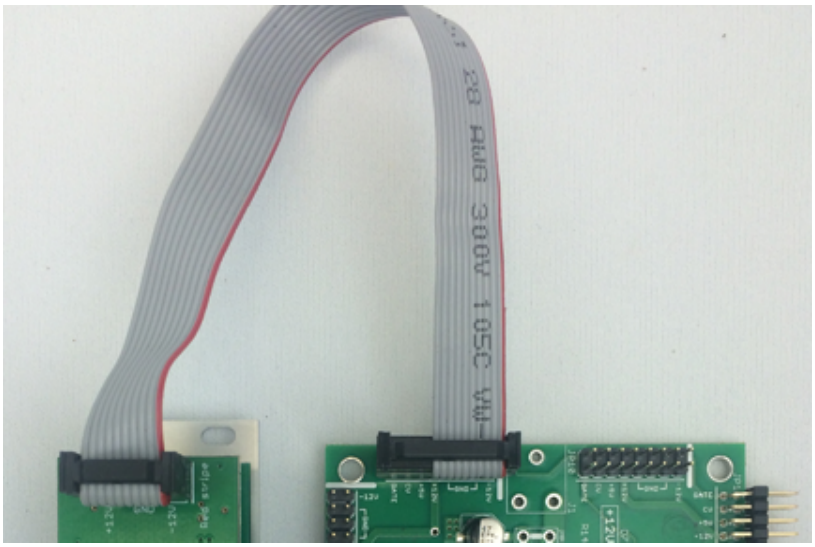
Most modules will come with the cable already connected but it is good to double check the orientation. Be aware that some modules may have headers that serve other purposes so ensure the cable is connected to the right one.



The other end of the cable, with a 16-pin connector, connects to the power bus board of your Eurorack case. Ensure the red stripe on the cable lines up with the -12V pins on the bus board. On Intellijel power supplies the pins are labelled "-12V" with thick white stripe. Sometimes the connectors are shrouded, ensuring the cable can only be oriented in one direction.

If you are using another manufacturer's power supply, check their documentation for instructions.

Once connected, the cabling between the module and the power supply should resemble the picture below:



Before reconnecting power and turning on your modular system, double-check that the ribbon cable is fully seated on both ends and that all the pins are correctly aligned. If the pins are misaligned in any direction or the ribbon is backwards you can cause damage to your module, power supply, or other modules.

After you have confirmed all the connections, you can reconnect the power cable and turn on your modular system. You should immediately check that all your modules have powered on and are functioning correctly. If you notice any anomalies, turn your system off right away and check your cabling again for mistakes.

OVERVIEW

Stereo I/O 1U is an all-in-one audio input/output module designed to bridge the gap between your Eurorack system and line level devices. Whether you want to process external audio with your modules, monitor your patch with headphones, or connect your system to mixers or interfaces with line level - **Stereo I/O 1U** has got you covered. The main features of this module include:

- Main output to balanced stereo line level with volume control (for line mixers, FX, speakers etc.)
- Stereo input from balanced line level with gain switches (for Grooveboxes, FX, Synthesizers etc.)
- ⅛" stereo headphone output with independent level control & source selection.
- Cue output for monitoring with headphones or summing with the main output.

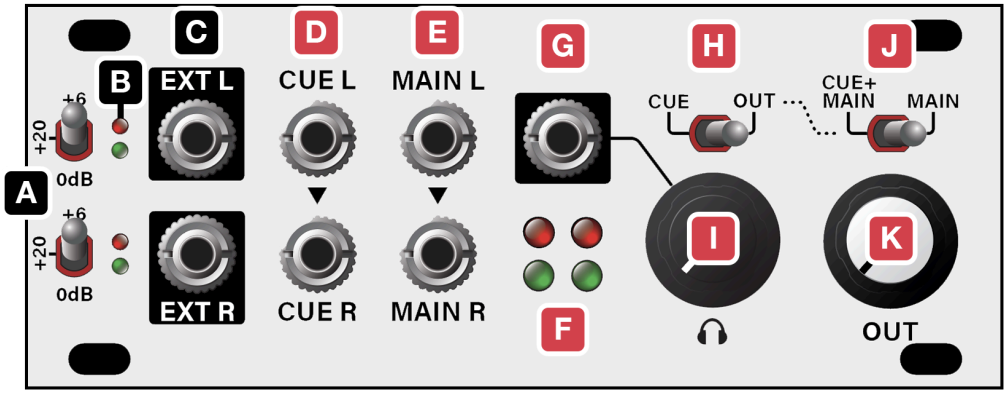
The **Stereo I/O** module connects to compatible Intellijel Cases & Modules using 6-pin or 3-pin connectors on the rear of the module. These multi-pin connectors are compatible with:

- The Audio Jacks board of Intellijel Performance & Palette Cases
- The Stereo Line In Jacks / Stereo Line Out Jacks 1U module
- The XY I/O 1U module

Because Stereo I/O 1U is designed specifically for audio (and not for CV mixing), it's AC-coupled and uses audio-grade, logarithmic attenuators for a smooth, even response across the entire volume range.

For further tips, tricks and instructional videos - check out our **Stereo I/O 1U** playlist on YouTube: https://intellijel.com/go/stereo-io-videos

FRONT PANEL



[A] INPUT GAIN SWITCH: Sets gain for **EXT OUT [C]**.
Down position = 0dB (no gain), Up position = +6dB, Mid position = +20dB.

[B] INPUT LED METER: Displays signal input activity (green LED) and overload (red LED) at **EXT OUT [C]**.

[C] EXT OUT: ⅛" patch points from the input connectors on the rear of the module.
Connector source: **BAL-IN [1]**, **UNBAL-IN [3]**, **UNBAL-I/O [6]**.

[D] CUE IN: ⅛" patch inputs for the Cue feed. Left normals to right for mono sources. It can be monitored through the **HEADPHONE OUTPUT [G]** when **HP MONITOR SWITCH [H]** is set to "CUE". It can also be summed with the **MAIN IN [E]** by switching the **MODULE OUT SWITCH [J]** to "CUE+MAIN".

[E] MAIN IN: ⅛" patch points to the module output. Left normals to right for mono sources. Connector destination: **BAL-OUT [2]**, **UNBAL-OUT [4]**, **PHONES OUT [6]**, **UNBAL-I/O [6]**.

[F] OUTPUT METER Displays signal activity (green LED) and overload (red LED) from module output.

[G] HEADPHONE OUTPUT: ⅛" TRS stereo output for Headphones.

[H] HP MONITOR SWITCH: Selects **HEADPHONE OUTPUT [G]** source. "CUE" selects **CUE IN [D]** and "OUT" selects the module output.
Left Position = Cue In only, Right Position = Module Out only.

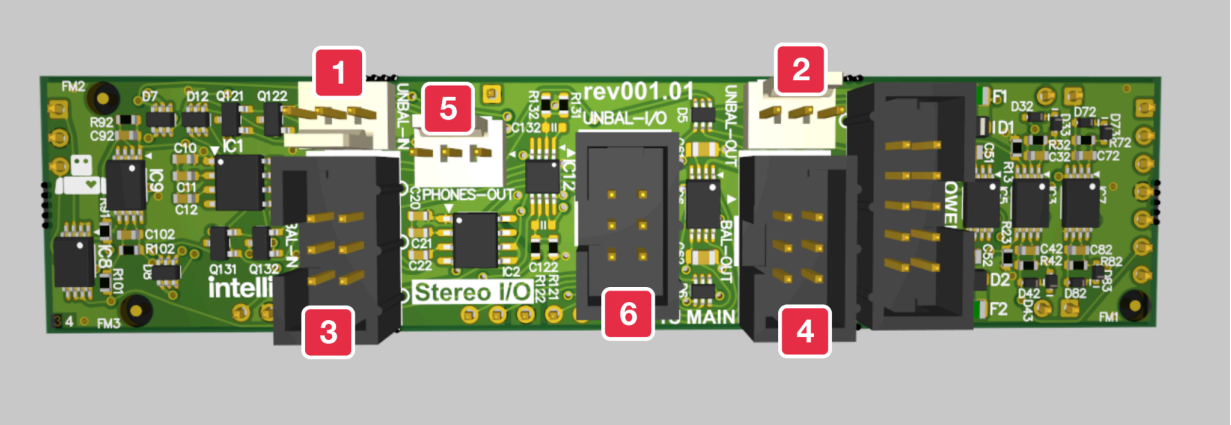
[I] HEADPHONE LEVEL Attenuator for **HEADPHONE OUTPUT [G]**

[J] MODULE OUT SWITCH: Sets module output. Left Position = **CUE IN [D] + MAIN IN [E]** Right Position - **MAIN IN [E]** only.

[K] MAIN OUTPUT LEVEL Attenuator for module output.

BACK PANEL

Stereo I/O 1U connects to compatible Intellijel Cases & Modules via connectors on the rear side of the module:



[1] UNBAL-IN: Unbalanced 3-pin input connector. This takes line level input from connected cases or modules and routes to **EXT OUT [C]** on the front of the module.

[2] UNBAL-OUT: Unbalanced 3-pin output connector. This takes modular input from **MAIN IN [E]** (+ **CUE IN [D]** if summed to module out) and outputs to compatible case or module

[3] BAL-IN Balanced 6-pin input connector with a shrouded header. This takes line level input from connected cases or modules and routes to **EXT OUT [C]** on the front of the module.

[4] BAL-OUT: Balanced 6-pin input connector with a shrouded header. This takes modular input from **MAIN IN [E]** (+ **CUE IN [D]** if summed to module out) and outputs to compatible case or module

[5] PHONES-OUT: Unbalanced 3-pin output connector that is fed from the **HEADPHONE OUTPUT [G]** source. It can be used as an output to other compatible modules or cases including **Headphones 1U**.

[6] UNBAL-I/O: Unbalanced 6-pin stereo I/O connector. This gives you the option to turn 1x pair of audio jacks on a compatible case or module into unbalanced Stereo Input & Stereo Output using TRS Jacks. Input feeds to **EXT OUT [C]** and Output is fed from **MAIN IN [E]** (+ **CUE IN [D]** if summed to module out).

***IMPORTANT**: Never use the 3-wire Link cable to directly connect a **Stereo I/O 1U** module to an Intellijel **Pedal I/O** module. Although both modules use this same cable/connector — they serve different purposes and carry different signals.*

Connecting to 7U Performance Case Audio Jacks GEN-2

This section refers to the **7U Performance Case Gen-2** (post December 2025). You can connect **Stereo I/O 1U** to the Audio Jacks Board in the case, using any of the 3-pin or 6-pin headers. There are a number of connection options available.

Balanced Input, Balanced Output or Unbalanced I/O

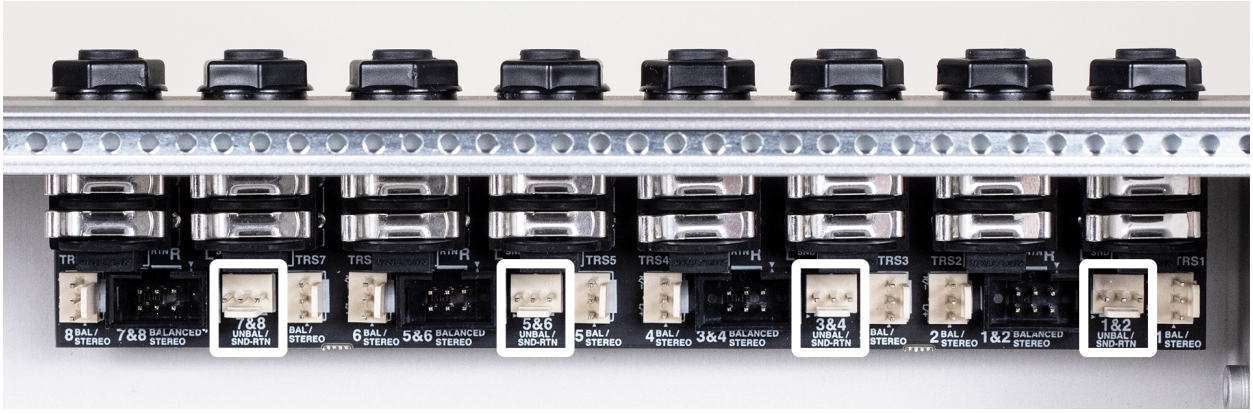
You can connect the **BAL-IN**, **BAL-OUT** or **UNBAL-I/O** to any of the four 6-pin connectors on the Audio Jacks Board (*shown above*). For **BAL-IN** or **BAL-OUT**, this creates a balanced stereo input or output from pairs of TRS ¼” jack connectors. Odd channels are left, and even channels are right (or left when normalled).

UNBAL-I/O turns a pair of jack sockets into an unbalanced stereo in and stereo out. The odd channel becomes the stereo input, and the even channel becomes the stereo output.

Unbalanced Input and Unbalanced Output - Single TRS Output

Connect **UNBAL-IN** or **UNBAL-OUT** to any of the eight 3-pin headers (*shown above*) for unbalanced stereo through a single TRS jack socket. Jack socket numbers are labelled so you can easily identify which sockets you are connecting to.

Unbalanced Input and Unbalanced Output - Dual TS Output

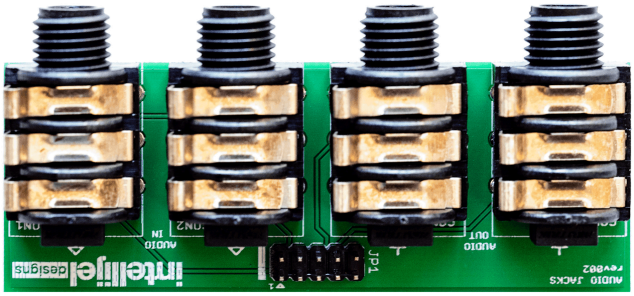


Connect **UNBAL-IN** or **UNBAL-OUT** to any of the four 3-pin headers (*shown above*) for unbalanced stereo in or out with a pair of jack sockets. Jack socket pairs are labelled, and each socket will use “Tip” for signal, and “Sleeve” for ground. Odd numbered channels are left, and even numbered channels are right (or normalled left if nothing is patched to the right).

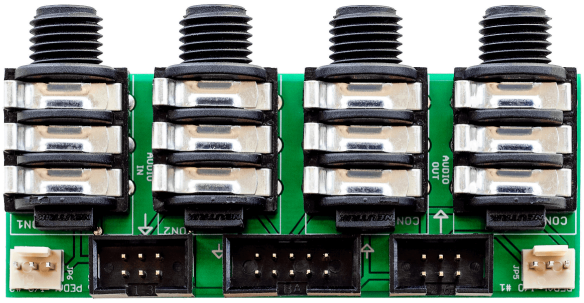
Connecting Stereo I/O 1U to the Audio Jacks on your 7U Case

This section refers to the 7U Performance Case Gen-1 (previous to December 2025). Cases between 2019-2025 had a Version 2 Audio Jacks Board installed (*below right*). It is possible to connect **Stereo I/O 1U** to the ¼" Jacks using 6-pin or 3-Pin connector cables.

Previous to 2019, cases had a Version 1 Audio Jacks Board which can be identified by the single 10-pin connector (*below left*). **Stereo I/O 1U** cannot interface with the Version 1 Audio Jacks Board. Examples below refer to Gen-2 configurations.



Version 1 Audio Jacks Board

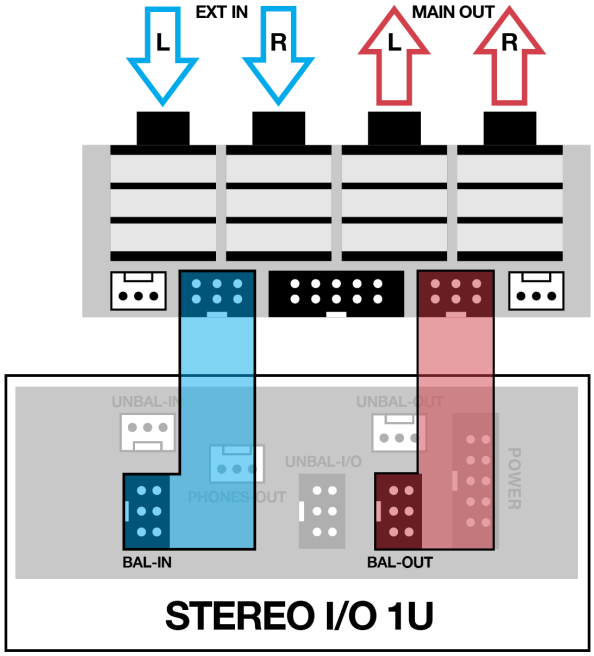


Version 2 Audio Jacks Board

Example A.1: Balanced Stereo I/O

This is the most common use case for **Stereo I/O 1U** with the **7U Performance Cases**. This configuration gives you a balanced stereo line in and line out.

1. Connect the 6-pin cable connector to **BAL-IN** on **Stereo I/O 1U.**
2. Connect the other end of the cable to the 6-pin connector on the left side of the Audio Jacks board.
3. Repeat to connect **BAL-OUT** to the 6-pin connector on the right side of the Audio Jacks board.

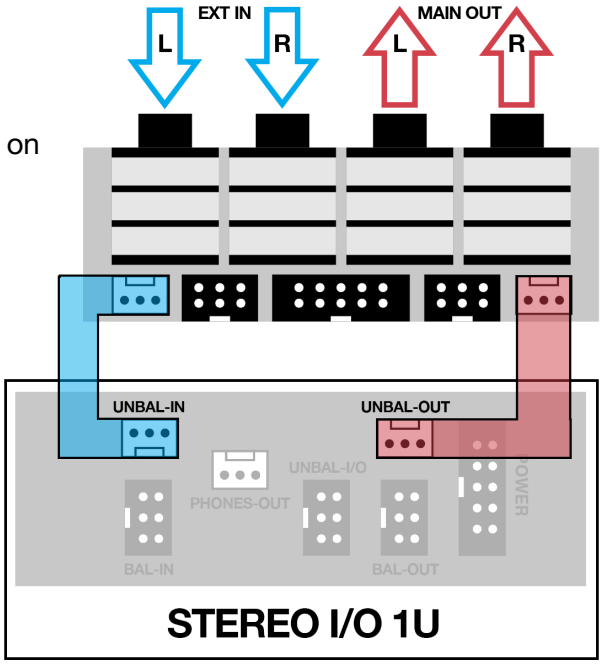


Example A.2: Unbalanced Stereo I/O

As an alternative to a balanced connection, you can also use the 3-pin connectors to get unbalanced I/O on the **7U Performance Case**.

1. Connect the 3-pin cable connector to **UNBAL-IN** on **Stereo I/O 1U.**
2. Connect the other end of the cable to the 3-pin connector on the left side of the Audio Jacks board.
3. Repeat to connect **UNBAL-OUT** to the 6-pin connector on the right side of the Audio Jacks board.

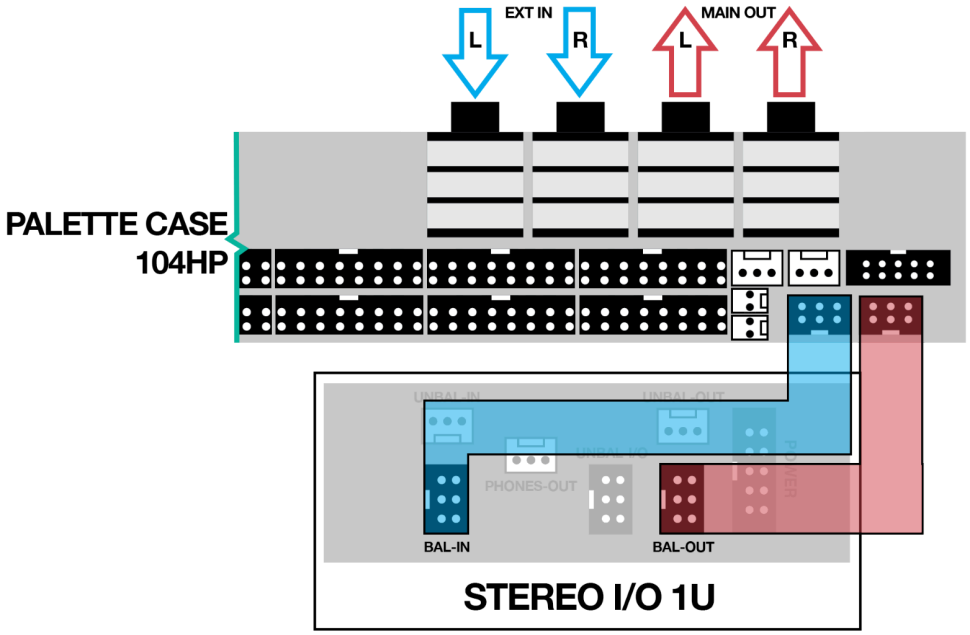
Note: For examples A.1 & A.2, you can switch the Audio jack connections around - ie. Ext In on the right & Main Out on the left.



Connecting Stereo I/O 1U to the Audio Jacks on a Palette Case

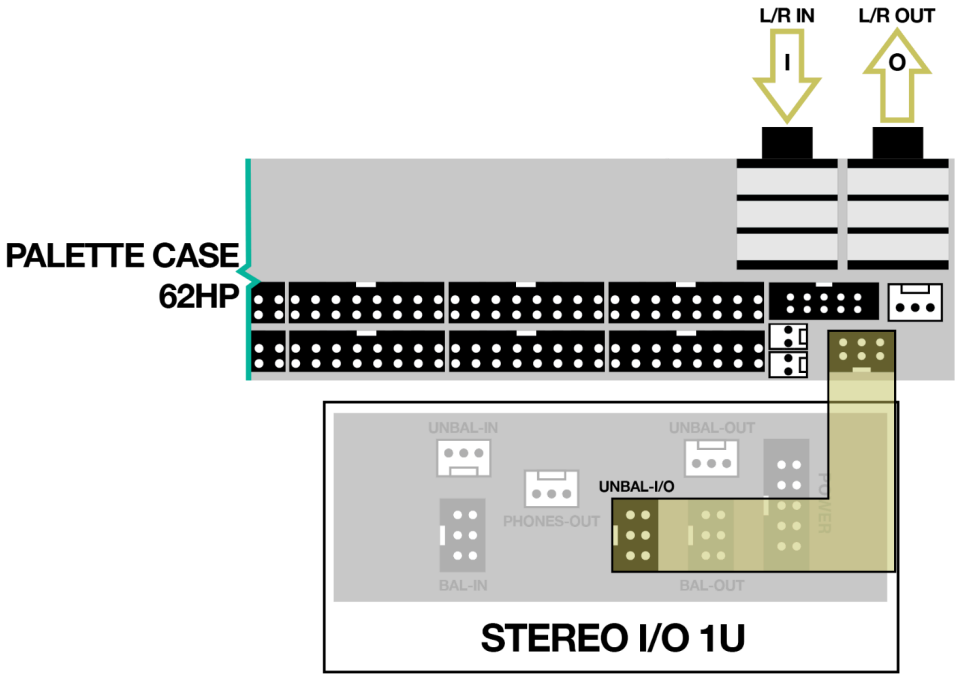
If you have an **Intellijel Palette Case**, you can connect **Stereo I/O 1U** directly to the ¼" audio jacks on the top of the Palette (1x pair on the **Palette 62**, and 2x pairs on the **Palette 104**). You also have the option to use the 3-pin (unbalanced) or 6-pin (balanced) connectors.

Example B.1: Balanced Stereo I/O with 104HP Palette



The **Intellijel 104HP Palette Case** has both 6-pin (balanced) and 3-pin (unbalanced) connectors. In this example here, **Stereo I/O 1U** is connected to the Audio Jacks with the 6-pin balanced option.

Example B.2: Unbalanced Mono I/O with 62HP Palette

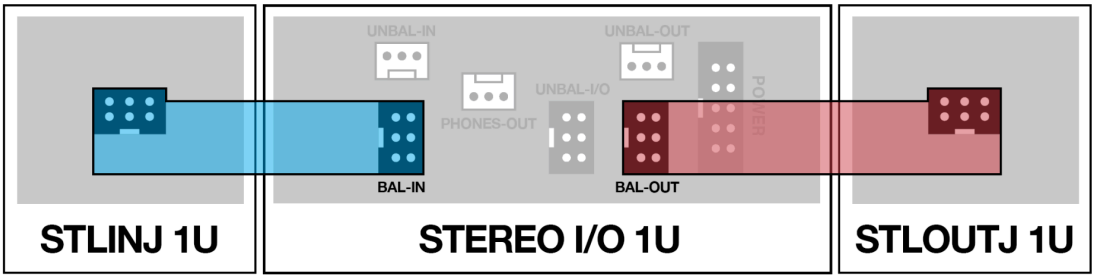


The **Intellijel 62HP Palette Case** only has 1x pair of audio jack sockets, with 6-pin (balanced) or 3-pin (unbalanced) connector options. You could use the pair of jack sockets for input or output only.

However, it is also possible to use the **UNBAL-I/O** connector to turn these 2 jack sockets into a stereo input and stereo output over ¼" TRS jack cables - as shown in this diagram.

Connecting Stereo I/O 1U to Stereo Line In / Line Out Jacks 1U

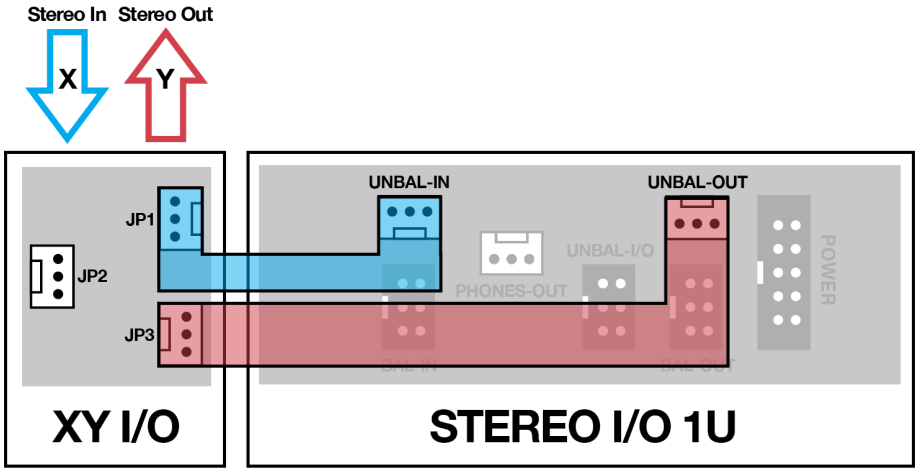
If you're using a third-party case with available 1U space, you can connect **Stereo I/O 1U** to **Stereo Line In Jacks 1U** and **Stereo Line Out Jacks 1U** for external connections, using the 6-pin (balanced) connectors.



Connecting Stereo I/O 1U to XY I/O 1U

XY I/O 1U has smaller ⅛” TRS jack sockets which can be linked to **Stereo I/O 1U** instead of the larger ¼” options already mentioned. This is useful for smaller systems, or connecting to devices with ⅛” line level outs.

Using the 3-pin connector cables, link **UNBAL-IN** to **JP1**, and **UNBAL-OUT** to **JP3**. On the front panel, X will be an unbalanced TRS stereo input and Y will be an unbalanced TRS stereo output.



TECHNICAL SPECIFICATIONS

Width	20 hp
Maximum Depth	42 mm
Current Draw	48mA @ +12V 29mA @ -12V

Compatible Intellijel Modules & Cases

Intellijel Case / Module	**Input > Stereo I/O**	**Stereo I/O > Output**
7U Performance Case Gen-2	2 CH Balanced Dual ¼” TRS	2 CH Balanced Dual ¼” TRS
7U Performance Case Gen-1	2 CH Balanced Dual ¼” TRS	2 CH Balanced Dual ¼” TRS
104HP x 4U Palette Case	2 CH Balanced Dual ¼” TRS	2 CH Balanced Dual ¼” TRS
62HP x 4U Palette Case	2 CH Unbalanced Single ¼” TRS	2 CH Unbalanced Single ¼” TRS
Stereo Line In Jacks 1U	2 CH Balanced Dual ¼” TRS	—
Stereo Line Out Jacks 1U	—	2 CH - Balanced Dual ¼” TRS
X/Y I/O 1U (Stereo In/Out on X/Y)	2 CH Unbalanced Single ⅛” TRS	2 CH Unbalanced Single ⅛” TRS