intellijel

µVCA II

Dual Voltage Controlled Amplifier and Cascaded Mixer

Manual (English)
Revision: 2021.08.03

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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

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:

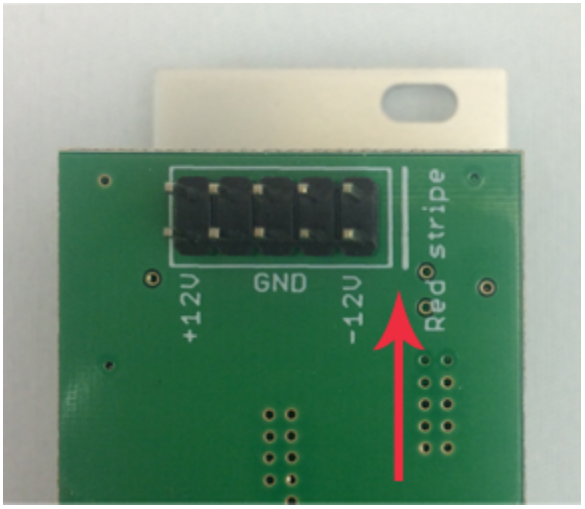
- Sum up the specified +12V current draw for all modules, including the new one. Do the same for the -12 V and +5V current draw. The current draw will be specified in the manufacturer's technical specifications for each module.
- Compare each of the sums to specifications for your case's power supply.
- 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.



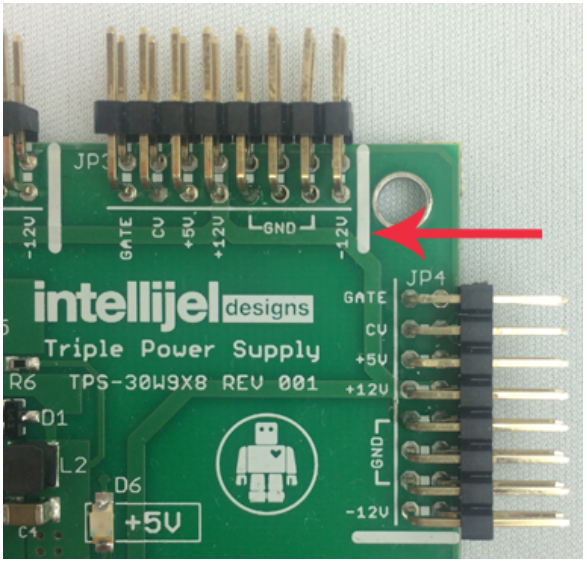
Ensure the 10-pin connector on the power cable is connected correctly to the module before proceeding. The red stripe on the cable must line up with the -12V pins on the module's power connector. The pins are indicated with the label -12V, a white stripe next to the connector, the words "red stripe", or some combination of those indicators.

Most modules will come with the cable already connected but it is good to double check the

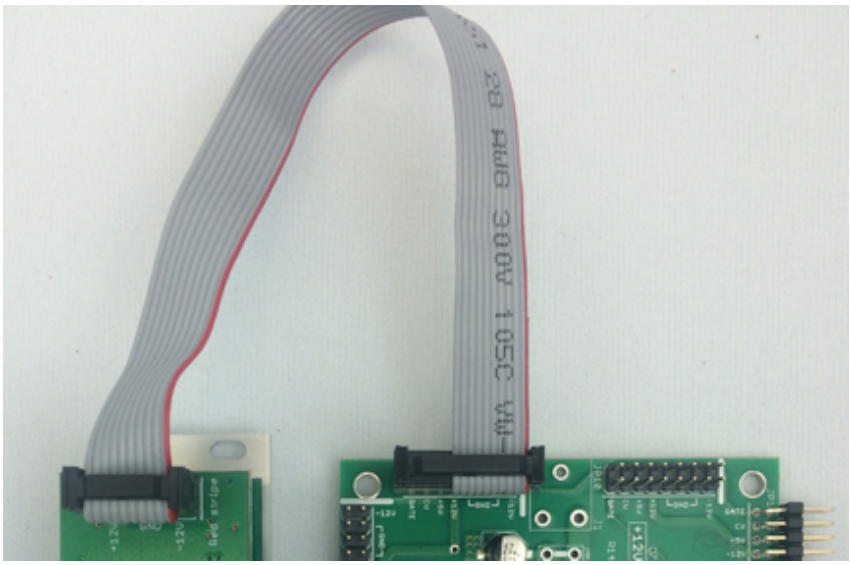
orientation. Be aware that some modules may have headers that serve other purposes so ensure the cable is connected to the right one.

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 with the label “-12V” and a thick white stripe:

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



Once connected, the cabling between the module and 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

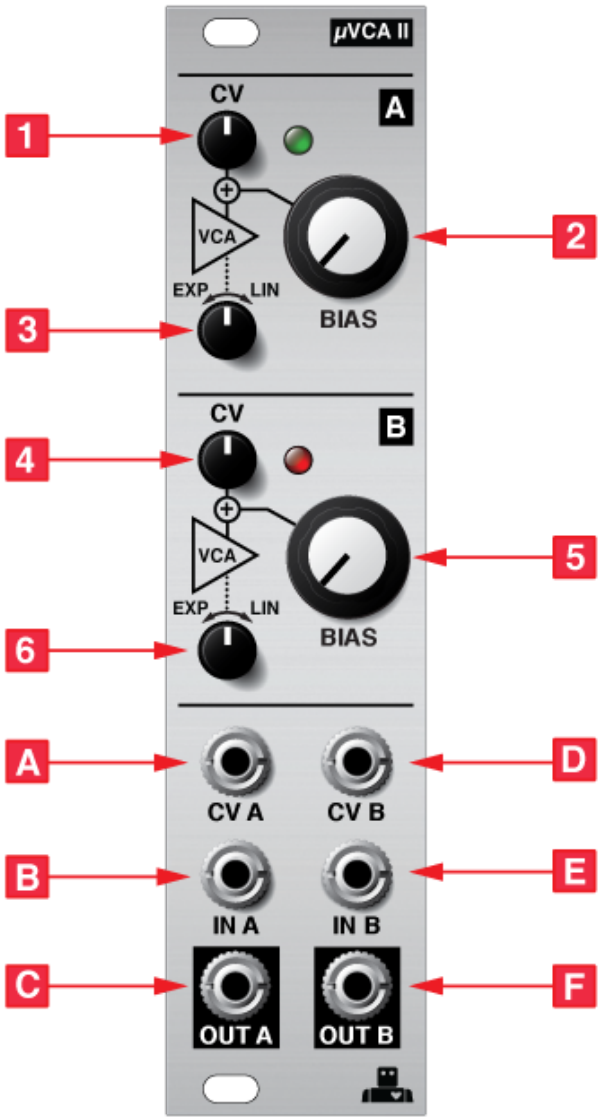
The µVCA II is a two-channel voltage controlled amplifier that features a response curve continuously adjustable between linear and exponential response.

Features

- Continuously adjustable response curve between linear and exponential
- Gain trimmer with above-unity gain
- Dedicated CV attenuators
- LEDs for monitoring CV signal

FRONT PANEL

Controls



[1] CV A - Sets the amount of attenuation for the CV A input. When fully clockwise the CV input is unattenuated. When fully counterclockwise the CV input has no effect. The brightness of the LED to the right of the attenuator varies according to the level of the resulting CV.

[2] BIAS A - Sets the initial level of amplifier A before CV is applied. The maximum bias is 5V which provides a gain of 1.

[3] EXP-LIN A - Sets the response curve of amplifier A. Linear when fully counterclockwise and exponential when fully clockwise.

[4] CV B - Same as CV A but for channel B.

[5] BIAS B - Same as BIAS A but for channel B.

[6] EXP-LIN B - Same as EXP-LIN A but for channel B.

Note that prior to fall 2015 the BIAS and CV knob positions were reversed but their functionality was the same.

Inputs and Outputs

[A] CV A - Control voltage input for the level of amplifier A. Summed with the BIAS A control. Voltages above 5 V will result in a gain greater than 1.

[B] IN A - Input signal for amplifier A. This is a direct coupled input so DC or AC signals can be fed here.

[C] OUT A - Output signal for amplifier A.

[D] CV B - Control voltage input for the level of amplifier B. Summer with the BIAS B control. Voltages above 5 V will result in a gain greater than 1.

[E] IN B - Input signal for amplifier B. This is a direct coupled input so DC or AC signals can be fed here.

[F] OUT B - Output signal for amplifier B. As of the fall 2015 model OUT A is normalled to be mixed into this output as long as nothing is patched in OUT A. This means you can use the module as a simple two channel mixer.

TECHNICAL SPECIFICATIONS

Width	6 hp
Maximum Depth	35 mm
Current Draw	36 mA @ +12V 35 mA @ -12V