

TIPTOP audio[®]



**ZEUS Series:
microZEUS with
Flying Bus Boards**

www.tiptopaudio.com

Zeus Series: microZEUS with Flying Bus Boards

The uZeus is a 4HP power supply module for Eurorack format synthesizers. This version comes with two (2) flying bus boards that are already attached to the module. An additional connection is available on the uZeus for attaching an extra flying bus board if needed. The flying bus boards use a keyed connector, ensuring that module power cables can only be connected in the correct position.

When ordering your uZeus make sure to order a power adapter that fits your country's power plug. These adapters are usually offered along side the uZeus by the shops carrying them in your country.

Connecting the uZeus:

First, attach your uZeus to your system. It can be placed in any position along the rails, but it is strongly recommended that it be placed on the rightmost edge of your case.

Next, plug the wall adapter in to your mains supply and insert the barrel plug into the uZeus. Once connected, turn the switch to the 'ON' position and make sure all three (3) red lights are illuminated.

If for any reason, one or all of them are not illuminated then immediately turn the switch to the 'OFF' position.

Check all of your connections before continuing. Is the uZeus in contact with another object? Are all of the modules plugged in properly?

Once you have successfully powered your uZeus, all you have left to do now is play!

It is important to note that the front panel of the uZeus may get very warm. Please do not be alarmed as this is normal and is part of the standard operation of the uZeus, more on that in the next pages, please continue reading.

WARNING: The internal components of the uZeus can get very hot. Do not touch the internal components while the uZeus is connected and/or powered.

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Owners of uZeus bought after January 2017 please skip this page

Tiptop Audio has the following recommendations for connecting your modules and using your uZeus:

The uZeus is designed to power systems ranging from 3U to 6U of 84HP of mixed analog and digital modules. As you keep adding modules to your system beyond 3U x 84HP **we recommend a simple test that will help you protect your uZeus and adapter from mistakenly getting overloaded and eventually failing.** To do so check the heat of your uZeus face plate and the power adapter roughly 10 minutes after power up. If they become almost too hot to the touch then you are overloading one of them and this will cause them to fail. Please remove a few modules and test again, repeating until they are reasonably but not burning hot. Please note: the uZeus was designed to be mounted on metal rails with good heat transfer such as Tiptop Z-Rails. **Do not** install the uZeus directly to wood or any other flammable material, this will cause the uZeus to overheat.

To insure long life for the power supply, you should be aware of the total power consumption of your system. This is determined by adding together the amount of current used by each of your modules. Please refer to the power consumption figures provided by your modules' manufacturer(s). Please note, digital modules are usually by far more demanding than analog modules.

To avoid crosstalk, it is recommended that High current-drawing modules like digital and DSP modules, VCOs and sound/noise generators should not all be plugged into a single bus board. For modules that are placed next to the uZeus and have more than one circuit board and may block the flying bus boards, take advantage of the ribbon cables flexibility and route it around the module. The bus boards were designed with this consideration in mind.

Wall Adapter Information:

The Tiptop wall adapter supplied with the Happy Ending kit is rated 1000mA and must be kept at that limit, it is a starter power supply and is not meant for powering large systems beyond a Happy Ending Kit. Higher power adapters can be used as long as you carefully keep checking how hot the uZeus face plate gets as recommended above. The uZeus uses 15VDC adapters with 2.5mm barrel jack center pin positive.

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This page is for uZeus owners with official Tiptop adapters bought after January 2017

Wall Adapter Information

The uZeus is designed to power systems ranging from 3U to 6U of 84HP with mixed analog and digital modules. Please make sure to use official Tiptop power adapter as these adapters are specially made to attain the best uZeus performance and provide maximum power rating.

As of January 2017, the Tiptop wall adapter supplied with the Happy Ending Kit are switch-mode type rated at 1000mA. These adapters have internal overload protection which will cause the lights on the uZeus to flash in case the adapter is overloaded. Please note that although the adapter is rated at 1000mA modules with high capacitive load will exceed their published power rating on power up.

When those spikes in current add up this might trigger the overload protection of this power adapter model. To keep expanding your system we recommend the larger and more powerful uZeus Boost adapter.

Notes:

Please note: the uZeus is designed to be mounted on metal rails with good heat transfer such as Tiptop Z-Rails. **Do not** install the uZeus directly to wood or any other flammable material, this will cause the uZeus to overheat.

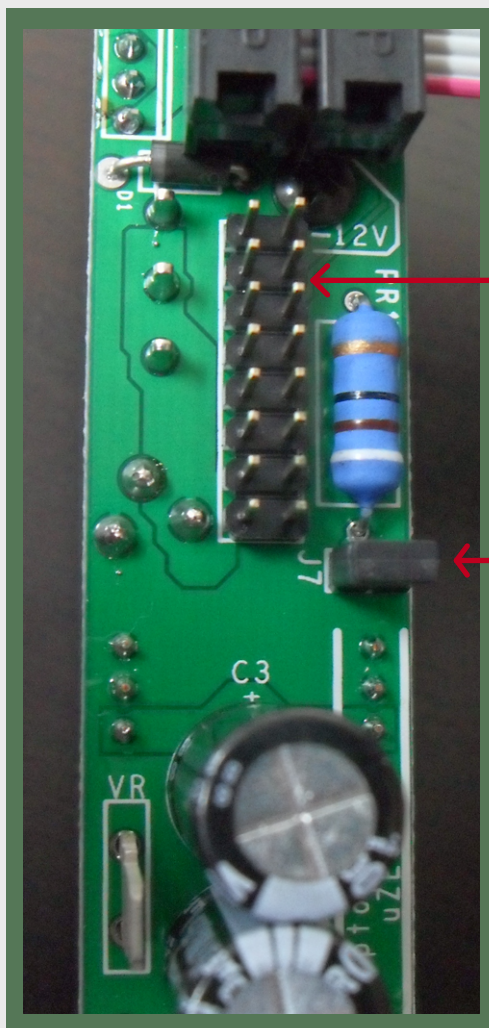
To avoid crosstalk, it is recommended that High current-drawing modules like digital and DSP modules, VCOs and sound/noise generators should not all be plugged into a single bus board. For modules that are placed next to the uZeus and have more than one circuit board and may block the flying bus boards, take advantage of the ribbon cables flexibility and route it around the module. The bus boards were designed with this consideration in mind.

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Using the -12V Rail:

The -12V rail uses a switching regulator. This switching regulator needs to have a minimum load of 100mA (out of 500mA) at any given time. The uZeus has a factory setting to self consume this current. If your uZeus is powering more than four (4) analog modules you can then disable this setting if desired to make this 100mA available for use by your modules.

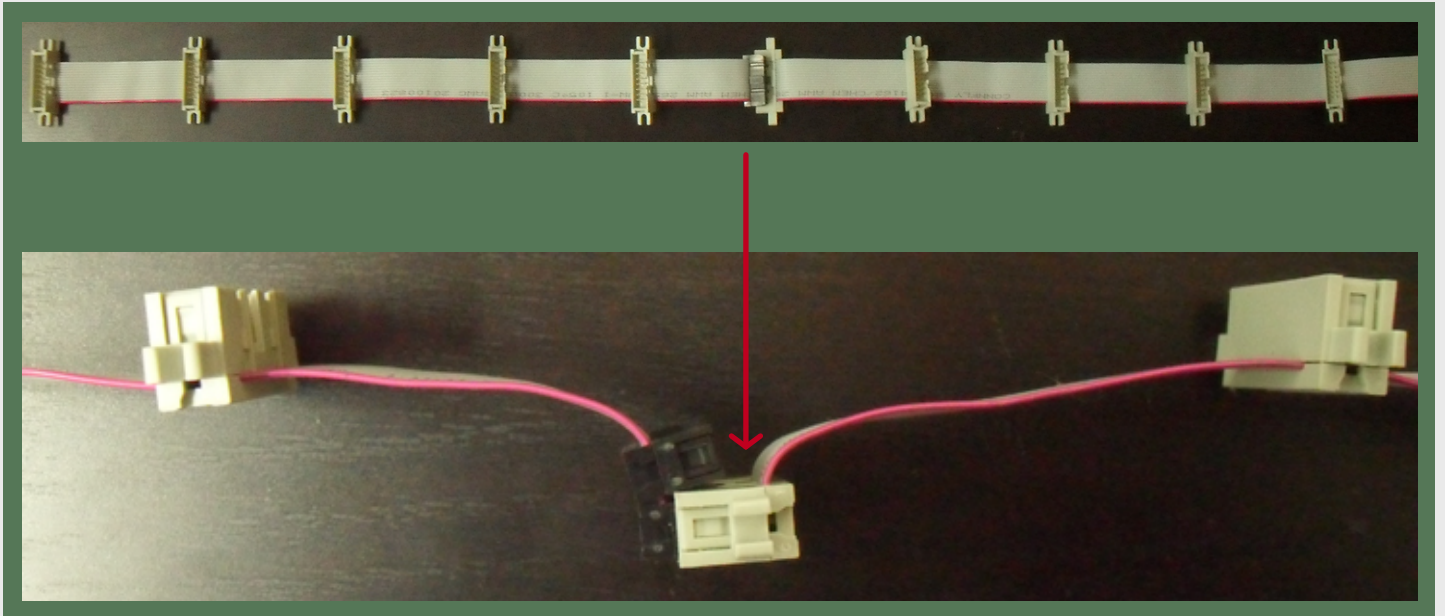
With the uZeus powered off, look for header J7 (located below the blue resistor) and remove the jumper. Re-insert the jumper such that it comes in contact with only one pin. Once reinstalled in the system, the uZeus will provide the full 500mA of -12V power for your modules.



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Creating Longer Bus Boards:

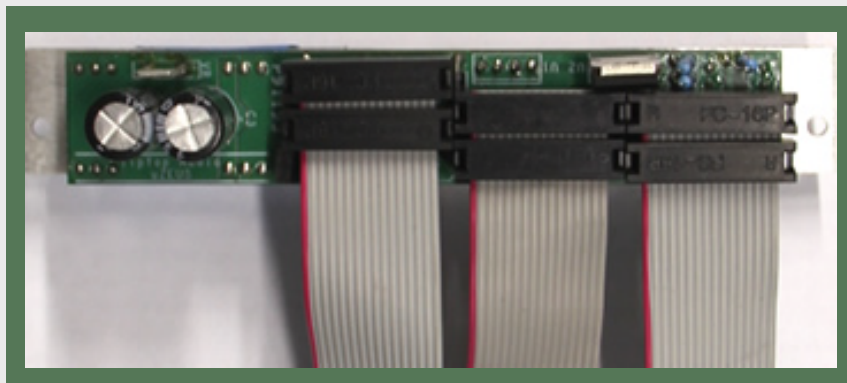
The Flying Bus Boards were designed for standard 19" (84HP) racks. If it becomes necessary to extend your Flying Bus Boards, the process is simple: purchase another Flying Bus Board and connect the female end to the last male connector on the existing Flying Bus Board.



Adding More Power Connectors:

If it becomes necessary to add more power connectors purchase another Flying Bus Board and install it on the additional port as shown in the picture (right).

Please note: As you keep adding more modules to your system make sure to monitor the heat of the uZeus face plate and the power adapter so to not over-heat them as they might get damage if overloaded.



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