



Fredenstein
Professional Audio

Bento 8 Pro
Pure Analog
Module Carrier

Operating Manual

Fredenstein Bento 8 Pro Pure Analog Module Carrier

The Fredenstein Bento 8 Pro features a complete linear power supply consisting of a mains transformer and linear regulators. This topology yields the cleanest power to your modules. Usually linear power supplies can't deliver high output currents, but Bento 8 outputs +/-16V DC 2A and +48V DC 0.25A, 500mA per slot, that's ample power for the most demanding 500 series modules!

Another drawback of linear supplies is that they are prone to introduce hum magnetically from the mains transformer directly into input and output transformer inside modules, especially when plugged into the slot closest to the supply. Bento 8 Pro incorporates extensive magnetic shielding of the mains transformer to eliminate induced hum.

In addition, Bento 8 Pro features a monitoring section. A discrete stereo headphone amplifier, VU-meters, and independent slot output selection for L and R channel. If you want to listen to a mono signal, set both selectors to the same slot. The independent selectors give you complete freedom of selecting your source, they even allow to reverse the stereo field by selecting the left channel to the right slot and the right channel to the left slot. The left VU-meter is connected to the selected L slot and the right meter to the selected R slot.

The Bento 8 Pro is constructed of the highest grade components:

1.5mm (59 mil) Steel Chassis, Toroidal Mains Transformer with two built-in thermal fuses, Schottky diode rectification, all Nichicon electrolytic capacitors rated for 105°C (221°F), etc.

Built-in Audio Routing:

Modules can be daisy-chained by simply flipping switches on the back-panel.

Compressor buss linking:

Compressor modules can be linked by engaging switches on the back-panel as well.

Ground-lift switch:

In case of ground loops, the audio ground and the protective ground can be disconnected. Please use only if absolutely necessary.

Installation:

**Please make sure the unit has the correct mains voltage rating for your country.
(See label on the rear)**

Electrical Safety Warnings:

Do not open the enclosure, hazardous voltages are present inside!

There are no user serviceable parts inside.

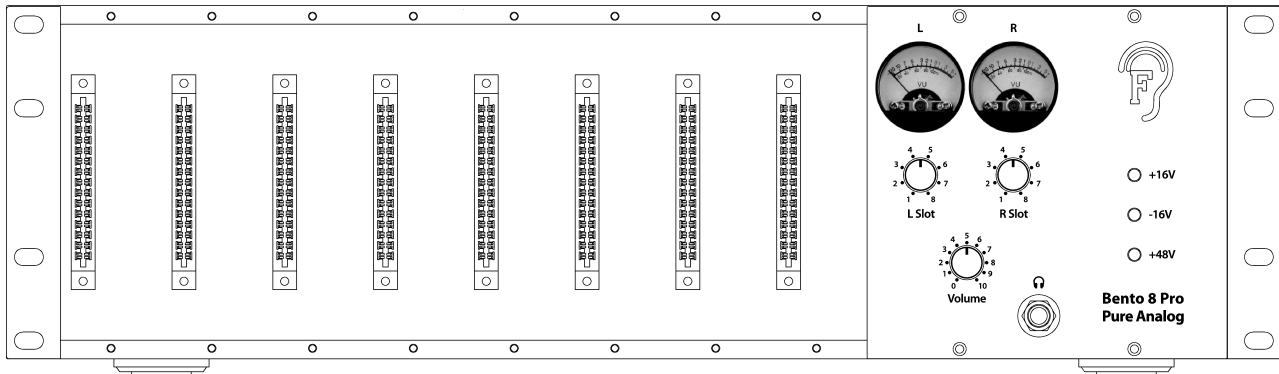
Always disconnect the mains cord before installing or removing modules!

If you need to replace the mains fuse, make sure the replacement has the same rating (3AT 250V, slow blow).

Make sure each installed module is well seated in the receiving connector and the module is secured by fastening the two mounting screws.

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Front View:



Operation:

After installation of the modules connect the mains cord to the Bento 8 Pro IEC socket located on the back-panel and then connect the mains cable to a grounded outlet. Now turn the Bento 8 Pro on by operating the I/O switch (also part of the IEC socket on the back). The three LEDs on the front-panel will come on and the Bento 8 Pro is ready for use.

In case you want to route the audio signal, for example, from a mic-pre in slot 1 to a EQ in slot 2 and then to a compressor in slot 3, turn the switches located in the lower part of the back-panel between the slot 1 and 2 and slot 2 and 3 in the link position. (Please be aware that this disables the slot 2 and the slot 3 input XLR connectors). Slot 1 input will be the microphone input and the slot 3 output will be the audio output of the complete chain.

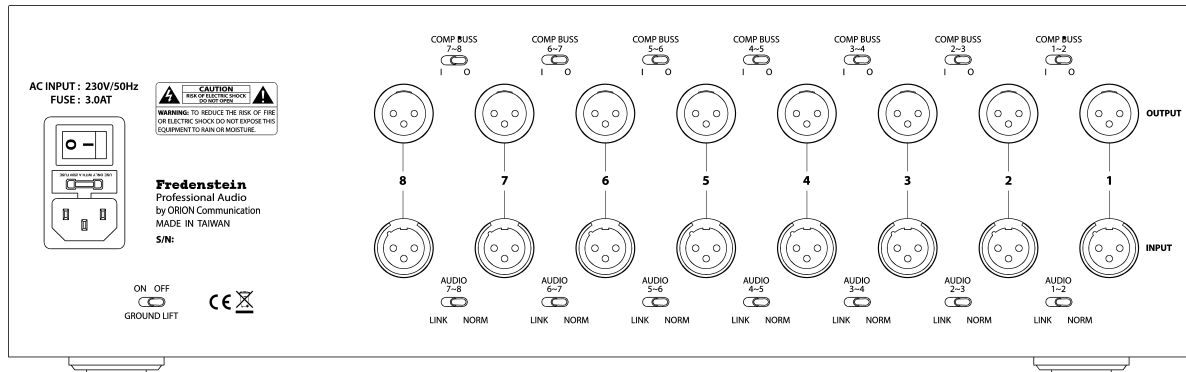
If you are using multiple compressors which make use of the compressor link buss (Pin 6), you can link two adjacent slots by putting the buss switch in the I position. You have the flexibility to have four buss segments for operating four Stereo compressor setups by engaging buss switches between the slots 1 & 2, 3 & 4, 5 & 6, and 7 & 8 or any other combination including a global buss if you engage all buss switches (surround 5.1 configuration). If you are using different types of compressors, you must keep them on separate segments of the buss.

In case of severe ground loops you might engage the ground-lift to alleviate such problems. But it is always recommended to resolve the grounding problems at their source and keep the ground-lift switch disengaged (OFF position).

The monitor section allows to check output levels and sound quality directly on the Bento 8 Pro. Especially useful in live and home recording environments, guaranteeing superior sonic quality. The monitor section allows to independently select one slot output for the left and one for the right channel. The selector switches are internally buffered to eliminate any possibility of noise when operating the selector switches during recording. These signals then are fed to the left and right VU-Meters and, through a volume control, to the discrete stereo headphone amplifier. In case you just want to listen to one slot output, put the two selector switches on the same slot output. The headphone connector is a 1/4" standard stereo type.

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Rear View:



Specifications:

Input Voltage: 117.5V or 235V (country specific) +/- 8%

Output Voltages: +16V DC 2A
-16V DC 2A
+48V DC 0.25A

Power Consumption: max 100W

Dimension (WxHxD): 480mm x 140mm x 190mm
19 inch, 3U

Weight: 6kg(NW) ;7.5kg(GW)
13.2 lbs(NW); 16.6 lbs(GW)

Fredenstein Bento 8 Module Connector Pin Description

Solder Side

Pin Number	Signal
Pin 1	Frame Ground
Pin 2	Main Out +
Pin 3	NC
Pin 4	Main Out -
Pin 5	Audio Ground
Pin 6	Compressor Buss

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Pin 7	NC
Pin 8	Main In -
Pin 9	NC
Pin 10	Main In +
Pin 11	NC
Pin 12	+16V Supply
Pin 13	Supply Ground
Pin 14	-16V Supply
Pin 15	+48V Supply

Component Side

Pin 1	Frame Ground
Pin 2	Main Out +
Pin 3	NC
Pin 4	Main Out -
Pin 5	Audio Ground
Pin 6	Compressor Buss
Pin 7	NC
Pin 8	Main In -
Pin 9	NC
Pin 10	Main In +
Pin 11	NC
Pin 12	+16V Supply
Pin 13	Supply Ground
Pin 14	-16V Supply
Pin 15	+48V Supply

NC = not connected

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