Fredenstein
Professional Audio

Bento 6D Rev. A
Module Carrier

Operating Manual

Fredenstein Bento 6D Rev. A Module Carrier

The Fredenstein Bento 6D is a high performance portable module carrier for Fredenstein Series 600 modules or API-500 compatible plug-in cards. The unit accepts a maximum of 6 modules.
The Bento 6D features several important upgrades compared with third party products:
Universal power supply: Mains voltages range from 90V AC to 240V AC, 50 to 60 Hz.
Increased output currents: +-16V DC 1.6A and +48V DC 0.1A (530mA per slot)
LCD Display: Monitoring the power-supply status and, if certain Fredenstein modules are used, like F600A, F601A, F603A/B, F604, and the F607, all operating parameters oft theses modules are displayed in real time as well. For example, if you are operating a F603A/B EQ, all selected frequency ranges and the exact gain of each band are displayed. This feature simplifies working with the F600 modules substantially. Only Fredenstein offers such functionality:
Auxiliary Audio Inputs and Outputs
Built-in compatibility switches for non-conforming modules.
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.
Multi-Layer Backplane: Increased signal integrity and lower noise floor.
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:

Electrical Safety Warnings:

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

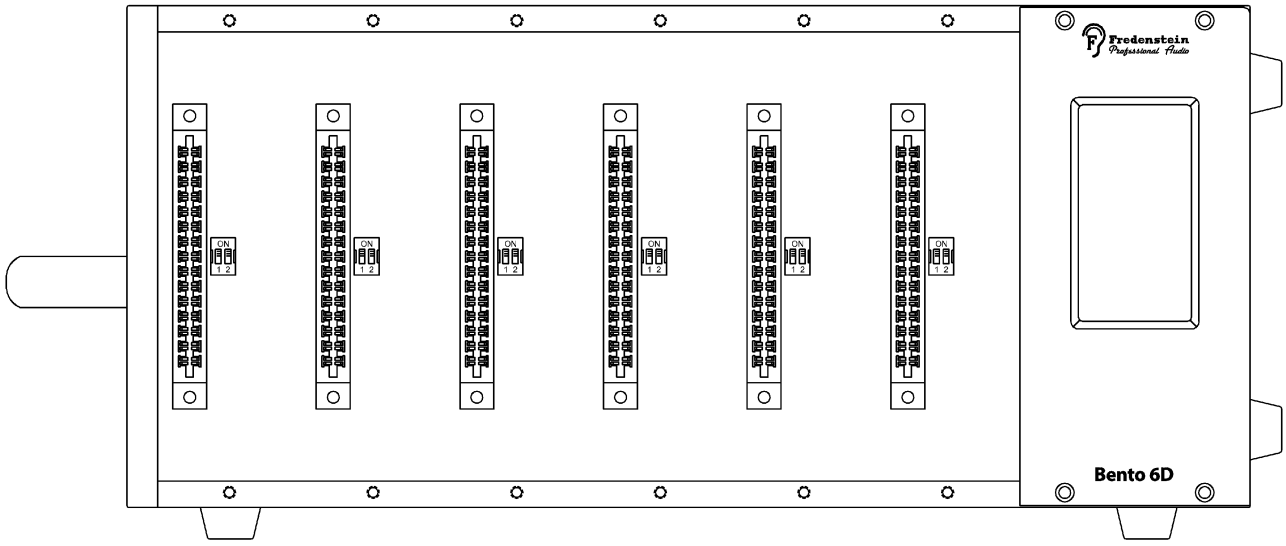
There are no user serviceable parts inside.

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 (2AT 250V, slow blow).

Please disconnect the mains from your Bento 6D before installing or removing modules. Make sure each installed module is well seated in the receiving connector and the module is secured by fastening the two mounting screws (size: M3).

Front View:



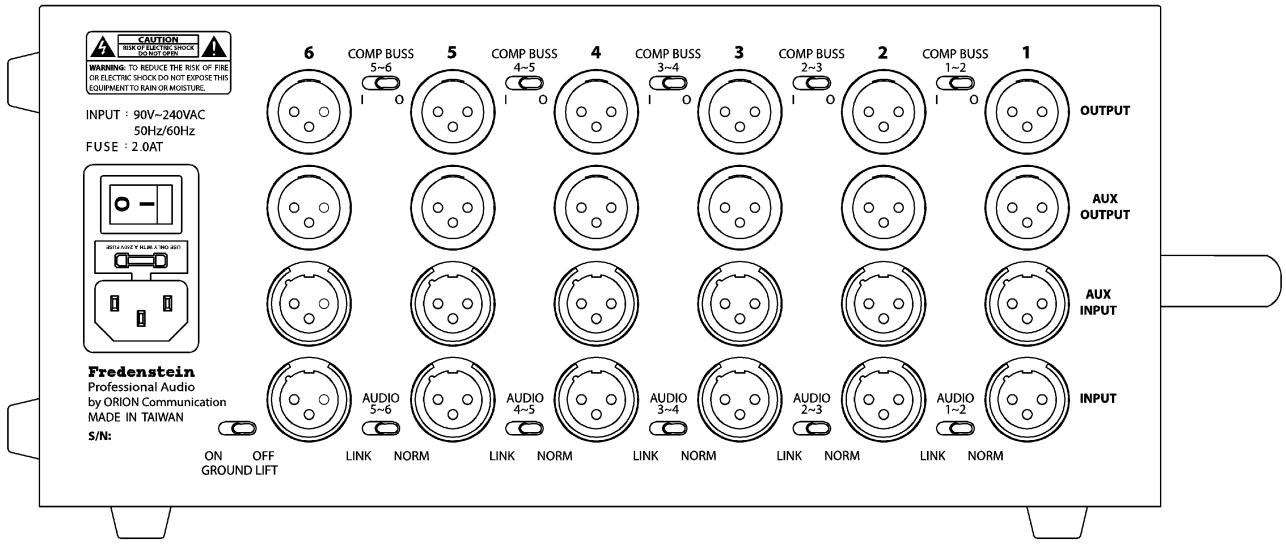
Fredenstein Bento 6D Rev. A Module Carrier

If certain non-Fredenstein modules are used, which bridge several pins on the connector and connected the contacts on the top and button side, the double switches, located directly besides the slot connectors, can both be turned off (lower position) to avoid interference between the module and the digital interconnect. For Fredenstein modules, both need to be in the ON (upper) position.

Operation:

After installation of the modules connect the mains cord to the Bento 6D IEC socket located on the back-panel and than connect the mains cable to a grounded outlet. Now turn the Bento 6 on by operating the I/O switch (also part of the IEC socket on the back). After performing a brief self-test, the Bento 6D will display all three supply voltages.
In case you want, for example, route the audio signal 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.
In case 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 5 buss segments for operating five Stereo compressor setups by engaging buss switches between the slots 1 & 2, 3 & 4, and 5 & 6 or any other combination including a global buss if you engage all buss switches (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 AUX Input and AUX Output connectors can only be used with modules especially designed for Bento module carriers, like the Fredenstein F604, F605, F606, and F607.

Rear View:



Fredenstein Bento 6D Rev. A Module Carrier

Specifications:

Input Voltage: 90V AC to 240V AC, 50 to 60 Hz
Output Voltages: +16V DC 1.6A
-16V DC 1.6A
+48V DC 0.1A

Power Consumption: max 90W

Dimension (LxHxD): 300mm x 135mm x 190mm (without handle and feet)
350mm x 145mm x 190mm (including handle and feet)

Weight: 3.8kg(NW) ; 4.8kg(GW)

Fredenstein Bento 6D Module Connector Pin Description

Solder Side

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

Fredenstein Bento 6D Rev. A Module Carrier

Component Side

Pin 1	Frame Ground
Pin 2	NC
Pin 3	Digital Interconnect 1
Pin 4	NC
Pin 5	Audio Ground
Pin 6	NC
Pin 7	Digital Interconnect 2
Pin 8	NC
Pin 9	Digital Interconnect 3
Pin 10	NC
Pin 11	NC
Pin 12	+16V Supply
Pin 13	Supply Ground
Pin 14	-16V Supply
Pin 15	+48V Supply

NC = Not-Connected

Contact Info:

Fredenstein Professional Audio

by Orion Communication
7F-1, No. 582, Ruei Guang Rd.
Neihu District
Taipei 114
Taiwan

Phone : + 886-2-2657-2618
Email : info@fredenstein.com
Web : www.fredenstein.com