

CompactPWR

Introduction

Thank you for purchasing the CompactPWR active bus board from Konstant Lab. This manual will guide you through the installation, setup, and operation of your new power supply for Eurorack modular synthesizer systems.

Package Contents

- CompactPWR active bus board
- Standard input panel with barrel connector and power switch
- Mounting hardware
- Quick start guide

Note: The 40W AC/DC power brick and USB-C input panel are sold separately or in special bundles

Specifications

- **Dimensions:** 174mm x 79mm
- **Power Output:**
 - +12V: 1250mA
 - -12V: 1250mA
 - +5V: 1000mA
- **Total Power:** 35W
- **Input Voltage:** 12-24V DC (standard) or 15-20V (USB-C PD)
- **Connectors:** 20 x 16-pin IDC output connectors

Installation

Mounting in Your Case

1. Ensure your Eurorack case has sufficient space for the CompactPWR (174mm x 79mm).
2. Power off and unplug any existing power supply from your case.
3. Use the provided mounting hardware to secure the CompactPWR to your case.
4. If using the standard input panel, mount it in an accessible location on your case.

Connecting Power

Standard Input Panel (12-24V DC)

1. Connect the barrel connector from your external power brick (12-24V DC, center positive) to the input panel.
2. Ensure the power switch on the input panel is in the OFF position.
3. Connect the input panel to the CompactPWR using the attached cable.

Optional USB-C Input Panel

1. Connect the USB-C input panel to the CompactPWR using the cable provided with the USB-C panel.
2. Mount the USB-C input panel to your case.
3. Connect a compatible USB-C PD charger or power bank (capable of 15-20V output and at least 50W) to the USB-C panel.

Connecting Modules

1. Ensure all power is disconnected before connecting or disconnecting any modules.
2. Connect your Eurorack modules to the CompactPWR using standard 16-pin ribbon cables.
3. Always observe proper orientation of the ribbon cables:
 - The red stripe on the ribbon cable should align with the -12V pins marked on the CompactPWR and your modules.
 - Incorrect connection can damage your modules.

Operation

Power Up Sequence

1. Double-check all connections to ensure they are correct and secure.
2. Ensure no modules have loose connections or short circuits.
3. Switch the power to the ON position (standard input panel) or connect the USB-C power source.
4. Verify that all three Voltage Presence LEDs (for +12V, -12V, and +5V) illuminate, indicating proper operation.

Fine-Tuning Voltage (Advanced Users)

The CompactPWR includes precision trimmers for adjusting the +12V and -12V rails:

1. Use a precision multimeter to measure the voltage at an unused power connector.
2. Using a small flathead screwdriver, carefully adjust the appropriate trimmer to achieve the desired voltage.
3. Adjustments can be made to within 0.02% accuracy.

Note: Voltage adjustments should only be performed by experienced users. The factory settings are calibrated for optimal performance.

Troubleshooting

No Power (No LEDs Illuminated)

- Check that your external power source is properly connected and turned on.
- Verify that the power switch on the input panel is in the ON position.
- Ensure your power brick or USB-C power bank / charger meets the minimum specifications.

Some Modules Not Working

- Check the ribbon cable connections to ensure proper orientation.
- Verify that the module's power requirements don't exceed the CompactPWR's capacity.
- Check if all Voltage Presence LEDs are illuminated.

Safety Precautions

- Always turn off power before connecting or disconnecting modules.
- Use only the recommended power supplies (12-24V DC center positive or USB-C PD 15-20V, 50W+).
- Do not attempt to modify the CompactPWR beyond the intended adjustments.

Technical Support

For technical assistance, please contact Konstant Lab through our website or email support.



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