

Crown CDi 4000

Crown CDi 4000 Two-Channel Power Amplifier User Manual

Model: CDi 4000

[Information](#) [Setup](#) [Operating](#) [Introduction](#) [Safety](#) [Maintenance](#) [Troubleshooting](#) [Specifications](#) [Warranty & Support](#)

1. INTRODUCTION

The Crown CDi 4000 is a professional two-channel power amplifier designed for installed sound applications. This amplifier delivers 1200 watts at 4 ohms and supports 70V/140V outputs, making it highly versatile for various audio setups. It features an intuitive front-panel LCD screen for configuration and onboard digital signal processing (DSP) including crossovers, EQ filters, delay, and output limiting. This manual provides essential information for the safe and efficient operation of your CDi 4000 amplifier.



Figure 1: Front view of the Crown CDi 4000 Two-Channel Power Amplifier.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating this device. Retain this manual for future reference.

- **Electrical Shock Hazard:** Do not open the amplifier chassis. Refer all servicing to qualified personnel.
- **Power Source:** Connect the amplifier only to the type of power source indicated on the unit. Ensure proper grounding.
- **Ventilation:** Do not block ventilation openings. Ensure adequate airflow around the unit to prevent overheating.

- **Moisture:** Do not expose the unit to rain or moisture.
- **Cleaning:** Disconnect power before cleaning. Use a dry cloth.
- **Placement:** Avoid placing the unit near heat sources or in direct sunlight.

3. SETUP

3.1 Unpacking

Carefully remove the amplifier from its packaging. Inspect the unit for any signs of damage during transit. The package should include the Crown CDi 4000 amplifier and a power cable.

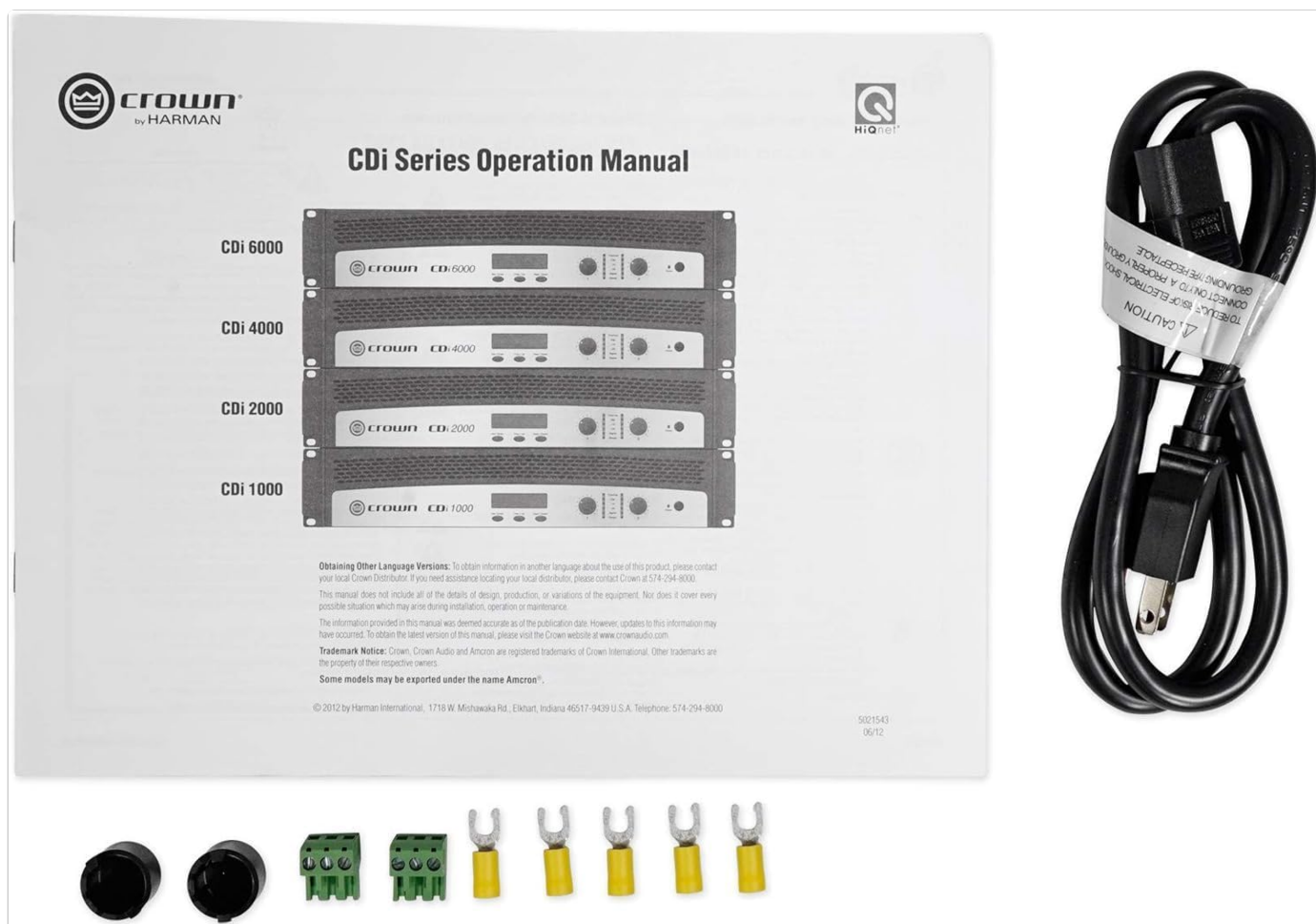


Figure 2: Included power cable for the CDi 4000 amplifier.

3.2 Physical Installation

The CDi 4000 is designed for rack mounting. Ensure the rack provides adequate ventilation. The amplifier dimensions are approximately 22 x 19 x 7 inches (L x W x H).



Figure 3: Side view of the CDi 4000, illustrating its rack-mountable design.

3.3 Connections

Before making any connections, ensure the amplifier is powered off and disconnected from the mains supply.



Figure 4: Rear panel connections of the Crown CDi 4000 amplifier.

- **Input Connections:** Connect your audio source to the input terminals (CH1, CH2).
- **Output Connections:** Connect your loudspeakers to the output terminals. The amplifier supports 2-, 4-, 8-ohm loads, and 70V/140V constant voltage outputs. Refer to the wiring diagram on the rear panel for correct connections based on your speaker configuration.
- **Power Connection:** Connect the supplied power cable to the AC inlet on the rear panel and then to a suitable mains power outlet.

3.4 Initial Power-Up

Once all connections are secure, press the power button on the front panel. The LCD screen will illuminate, and the amplifier will initiate its startup sequence. Observe the indicators for normal operation.

4. OPERATING

4.1 Front Panel Controls



Figure 5: Detailed view of the CDi 4000 front panel controls.

- **LCD Screen:** Displays operational status, menu navigation, and DSP settings.
- **Navigation Buttons (Sel/Enter, Prev/Up, Next/Down):** Used to navigate through menus and adjust parameters on the LCD screen.
- **Level Controls:** Rotary knobs for adjusting the output level of each channel.
- **Power Button:** Toggles the amplifier's power on and off.
- **Indicators:** LEDs for Thermal, Clip, Signal, and Ready provide visual feedback on the amplifier's status.

4.2 Digital Signal Processing (DSP)

The CDi 4000 features onboard DSP for advanced audio configuration. Access DSP settings via the front panel LCD and navigation buttons. Functions include:

- **Crossovers:** Configure frequency division for different speaker types.
- **EQ Filters:** Adjust frequency response to optimize sound for the environment.
- **Delay:** Synchronize audio signals for proper phase alignment.
- **Output Limiting:** Protect speakers from overdriving.
- **User Presets:** Up to 20 user-defined DSP presets can be stored and recalled for quick setup changes.

4.3 70V/140V Operation

The amplifier supports constant voltage output for distributed audio systems. Ensure proper wiring and configuration through the DSP settings when utilizing 70V or 140V outputs. Incorrect wiring can cause damage to the amplifier or speakers.

5. MAINTENANCE

- **Cleaning:** Periodically clean the exterior of the amplifier with a soft, dry cloth. Do not use liquid cleaners or solvents. Ensure ventilation grilles are free from dust and debris.
- **Ventilation:** Regularly check that the amplifier's ventilation openings are not obstructed. Proper airflow is crucial for preventing overheating and ensuring long-term reliability.
- **Firmware Updates:** Check the official Crown website for any available firmware updates. Follow the instructions provided by the manufacturer for any update procedures.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your CDi 4000 amplifier.

Problem	Possible Cause	Solution
No Power	Power cable disconnected; outlet fault; amplifier fuse blown.	Check power cable connection; test outlet; consult qualified service personnel for fuse replacement.
No Sound Output	Input signal issue; speaker connection fault; amplifier muted or level too low; DSP settings.	Verify input source and cables; check speaker wiring; increase level controls; review DSP settings for muting or incorrect routing.
Distorted Sound	Input signal too high (clipping); speaker impedance mismatch; faulty speaker.	Reduce input signal level; ensure correct speaker impedance for amplifier output; test with different speakers.
Overheating (Thermal LED on)	Insufficient ventilation; excessive load; prolonged high output.	Ensure clear airflow around the amplifier; reduce output level; check speaker impedance. Allow unit to cool down.

7. SPECIFICATIONS

Key technical specifications for the Crown CDi 4000 amplifier:

Feature	Detail
Model	CDi 4000
Output Power	1200 Watts @ 4Ω (per channel)
Number of Channels	2
Voltage Support	70V / 140V
Item Dimensions (L x W x H)	22 x 19 x 7 inches
Item Weight	20 Pounds
Material Type	Stainless Steel
Specification Met	UL, FCC, AES, EIA

8. WARRANTY & SUPPORT

8.1 Warranty Information

This product is sold by an AUTHORIZED CROWN NORTH AMERICAN DEALER and includes the official CROWN manufacturer's warranty. The warranty is valid only for products purchased from authorized sellers within the United States. Full details are available on the Crown website.

8.2 Customer Support

For technical assistance, service, or further information, please visit the official Crown website or contact your authorized Crown dealer. Always provide your product model number (CDi 4000) and serial number when seeking support. Official Crown Website: www.crownaudio.com



