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Model: MICRO4-2000D

INTRODUCTION

Thank you for choosing the Power Acoustik MICRO4-2000D 4-Channel Class D Car Amplifier. This ultra-compact amplifier is designed to deliver powerful and clear audio performance for your vehicle's sound system. This manual provides essential information for proper installation, operation, and maintenance to ensure optimal performance and longevity of your amplifier.

SAFETY INFORMATION

- Always disconnect the vehicle's battery negative terminal before beginning any installation.
- Ensure all wiring is properly routed and secured to prevent damage or short circuits.
- Use appropriate gauge wiring for power, ground, and speaker connections as specified in this manual.
- Avoid mounting the amplifier in locations exposed to excessive heat, moisture, or direct sunlight.
- Consult a professional car audio installer if you are unsure about any part of the installation process.

PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x Power Acoustik MICRO4-2000D 4-Channel Class D Amplifier
- User Manual (this document)
- Mounting Hardware (screws, etc.)



Image: The Power Acoustik MICRO4-2000D amplifier shown with its retail packaging.

PRODUCT OVERVIEW

The MICRO4-2000D is an ultra-compact 4-channel Class D amplifier designed for versatility and high performance. Its small footprint allows for installation in tight spaces without compromising on power output.

Key Features:

- Up to 2000W Max Output
- 4-Channel Full-Range or Bridged Operation
- Variable 12dB High-Pass and Low-Pass Filters (50Hz–500Hz)
- PWM MOSFET Power Supply
- Military-Grade PCB
- Wide Input Sensitivity (200mV–8V)

Component Identification:



Image: Detailed view of the amplifier's input controls and output terminals.

Input Controls: Gain adjustment, X-OVER (crossover) switches (LP/HP/FULL), and frequency adjustment for both front and rear channels.

RCA Inputs: For connecting audio signal from the head unit.

Speaker Outputs: Terminals for connecting speakers, with bridging options.

Power Terminals: +12V (power), REM (remote turn-on), GND (ground).

Protection Indicators: PW (power) and PT (protection) LEDs.

SETUP AND INSTALLATION

Proper installation is crucial for the performance and safety of your amplifier. If you are not confident in your ability to install this unit, please seek professional assistance.

1. Mounting Location:

Choose a mounting location that is dry, well-ventilated, and protected from direct sunlight or excessive heat. Ensure there is enough space around the amplifier for proper air circulation. The compact size of the MICRO4-2000D allows for flexible placement, such as under seats or in tight trunk spaces.



Image: The amplifier mounted in a car trunk, demonstrating its compact size and ease of integration.

2. Wiring Connections:

Use high-quality wiring for all connections. Refer to the diagram below for proper wiring. It is recommended to use 8-gauge power and ground wires for optimal performance.

Power Wiring:

1. **Ground (GND):** Connect the ground terminal to a clean, unpainted metal surface of the vehicle chassis. Ensure a solid connection to prevent noise and ensure proper operation. The ground wire should be as short as possible, ideally less than 18 inches (45 cm).
2. **Remote (REM):** Connect the remote terminal to the remote turn-on output of your head unit. This wire turns the

amplifier on and off with your car's audio system.

3. **+12V (Power):** Connect the +12V terminal directly to the positive terminal of your vehicle's battery. Install an appropriate fuse holder with a fuse (not included, typically 40A-60A for this amplifier) within 18 inches (45 cm) of the battery.

RCA Input Connections:

Connect the RCA output cables from your head unit to the RCA input jacks on the amplifier. Ensure correct channel matching (Front L/R, Rear L/R).

Speaker Output Connections:

Connect your speakers to the speaker output terminals. The MICRO4-2000D supports both full-range 4-channel operation and bridged 2-channel operation for subwoofers. Use 14-gauge speaker wire for standard installations.

- **4-Channel Mode:** Connect each speaker to its corresponding positive (+) and negative (-) terminal.
- **Bridged Mode:** For higher power output to subwoofers, bridge two channels. Connect the positive (+) terminal of the speaker to the positive (+) terminal of one channel and the negative (-) terminal of the speaker to the negative (-) terminal of the adjacent channel (e.g., Front L+ and Front R- for one bridged channel). Refer to the amplifier's terminal markings for specific bridging instructions.



Image: The amplifier with all necessary power and speaker wires connected, illustrating a typical installation setup.

OPERATING INSTRUCTIONS

Once installed, the amplifier requires proper adjustment for optimal sound quality.

1. Gain Adjustment:

The gain control matches the amplifier's input sensitivity to the output level of your head unit. Start with the gain set to minimum. Play a familiar piece of music at a moderate volume on your head unit. Slowly increase the amplifier's gain until you hear distortion, then back it off slightly. This ensures maximum clean output.

2. Crossover Settings:

The MICRO4-2000D features variable 12dB high-pass (HP) and low-pass (LP) filters, ranging from 50Hz to 500Hz. These filters allow you to direct specific frequency ranges to your speakers, improving sound clarity and protecting speakers from damaging frequencies.

- **FULL:** Full-range audio signal passes through. Use for speakers playing all frequencies.
- **HP (High-Pass):** Allows frequencies above the set point to pass. Ideal for tweeters or mid-range speakers to prevent low bass from reaching them.
- **LP (Low-Pass):** Allows frequencies below the set point to pass. Ideal for subwoofers to ensure only bass frequencies are reproduced.

Adjust the frequency knob to fine-tune the crossover point according to your speaker types and desired sound profile.

MAINTENANCE

- Keep the amplifier clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Ensure adequate ventilation around the amplifier to prevent overheating.
- Periodically check all wiring connections for tightness and corrosion.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No Power (Power LED off)	Blown fuse, poor power/ground connection, no remote signal.	Check inline fuse, verify +12V and GND connections, check remote wire connection to head unit.
Protection LED (PT) is on	Overheating, short circuit in speaker wiring, speaker impedance too low.	Allow amplifier to cool, check speaker wiring for shorts, ensure speaker impedance is within amplifier's specifications (2Ω stereo or 4Ω bridged minimum).
No Sound	No input signal, incorrect gain setting, speaker wires disconnected.	Check RCA input cables, adjust gain, verify speaker connections.
Distorted Sound	Gain set too high, poor ground connection, damaged speakers.	Reduce gain, check ground connection, inspect speakers for damage.

SPECIFICATIONS

Feature	Specification
Model Number	MICRO4-2000D
Max Power Output	2000 Watts
Number of Channels	4
Amplifier Class	Class D
Input Sensitivity	200mV – 8V
Crossover Filters	Variable 12dB HP/LP (50Hz – 500Hz)
Frequency Response	20Hz – 20kHz
Dimensions (L x W x H)	8.66 x 3.54 x 1.81 inches

Feature	Specification
Weight	2.79 Pounds
Power Supply	PWM MOSFET

POWER ACOUSTIK ULTRA COMPACT SIZE

A powerhouse that fits anywhere
small in size, big on performance

1.81"
HEIGHT



3.54" WIDTH



8.66" LENGTH

Image: Visual representation of the amplifier's compact dimensions.

WARRANTY AND SUPPORT

Power Acoustik products are designed and manufactured to the highest quality standards. For warranty information, please refer to the warranty card included with your product or visit the official Power Acoustik website. For technical support or service inquiries, please contact Power Acoustik customer service.

Website: www.poweracoustik.com

