

Matrix DX1800.5

Matrix DX1800.5 Car Power Amplifier User Manual

Model: DX1800.5

1. INTRODUCTION

Thank you for purchasing the Matrix DX1800.5 1800 Watt 5-Channel MOSFET Car Power Amplifier. This manual provides comprehensive instructions for the proper installation, operation, and maintenance of your new amplifier. Please read this manual thoroughly before attempting to install or operate the amplifier to ensure optimal performance and safety.

2. SAFETY INFORMATION

- Always disconnect the vehicle's battery negative terminal before starting any installation.
- Ensure all wiring is properly routed and secured to prevent pinching or damage.
- Use appropriate gauge power and ground wires as specified in the installation section.
- Do not mount the amplifier in areas exposed to direct sunlight, excessive heat, moisture, or dust.
- If you are unsure about any part of the installation process, consult a professional car audio installer.
- This amplifier is designed for 12V DC negative ground systems only.

3. PRODUCT OVERVIEW

The Matrix DX1800.5 is a high-performance 5-channel car power amplifier designed to deliver clear and powerful audio. It features a robust MOSFET power supply and versatile crossover controls for precise sound tuning.

Key Features:

- 5-Channel 1800 Watt MOSFET Power Amplifier
- Maximum Power Rating (4 Ohm): 125 Watts x 4 Channels + 480 Watts x 1 Channel
- Maximum Power Rating (2 Ohm): 250 Watts x 4 Channels + 800 Watts x 1 Channel
- PWM DC to DC Power Supply for stable performance
- 2 Ohm Stable Stereo operation
- Built-in Variable High Pass Filter (40 Hz - 3 kHz)
- Built-in Variable Low Pass Filter (40 Hz - 250 Hz)

- Built-in Bass Boost Control (0/+6/+12 dB)
- RCA Speaker / Line Output
- Comprehensive Protection Circuits (Short Circuit, Thermal, Speaker)
- Power and Protection LED Indicators
- Channel Separation: Greater than 60 dB
- Includes Bass Boost Remote Control

Product Views:



Figure 3.1: Top view of the Matrix DX1800.5 amplifier, showcasing the brand logo and model number.



Figure 3.2: Rear view of the Matrix DX1800.5 amplifier, showing the power, ground, remote, and speaker terminals.



Figure 3.3: Front panel view of the Matrix DX1800.5 amplifier, displaying RCA inputs, gain controls, and crossover adjustments.

4. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your amplifier. Follow these steps carefully.

4.1 Mounting Location

Choose a mounting location that is dry, well-ventilated, and away from direct heat sources. Ensure there is sufficient airflow around the amplifier. Common locations include the trunk, under seats, or behind rear seats.

4.2 Wiring Connections

1. **Power (BATT+):** Connect a direct wire from the positive terminal of the vehicle's battery to the BATT+ terminal on the amplifier. Use an appropriate gauge wire (e.g., 4 AWG for this amplifier) and install an in-line fuse holder within 18 inches of the battery.
2. **Ground (GND):** Connect a wire of the same gauge as the power wire from the GND terminal on the amplifier to a clean, unpainted metal surface on the vehicle's chassis. Ensure a good electrical connection.
3. **Remote (REM):** Connect a thin wire from the remote output of your head unit (usually a blue/white wire) to the REM terminal on the amplifier. This wire turns the amplifier on and off with your head unit.
4. **RCA Inputs:** Connect RCA cables from your head unit's pre-amp outputs to the corresponding RCA input jacks on the amplifier. Ensure correct channel matching (Front, Rear, Subwoofer).
5. **Speaker Outputs:** Connect your speakers to the amplifier's speaker terminals. Pay close attention to polarity (+ and -) for each speaker. Ensure the total impedance of your speakers matches the amplifier's stable impedance (2 Ohm stereo stable).

5. OPERATING INSTRUCTIONS

Once installed, you can adjust the amplifier settings to optimize your audio system's performance.

5.1 Gain Control

The gain control (LEVEL) matches the amplifier's input sensitivity to the output of your head unit. Start with the gain set to minimum. Play a familiar track at about 75% of your head unit's maximum volume. Slowly increase the amplifier's gain until you hear distortion, then back off slightly. Do not use the gain control as a volume knob.

5.2 Crossover Settings

- **High Pass Filter (HPF):** Used for full-range speakers (front/rear channels). This filter allows frequencies above the set point to pass through. Adjust to prevent low frequencies from distorting smaller speakers. Typical settings range from 80Hz to 120Hz.
- **Low Pass Filter (LPF):** Used for subwoofers (subwoofer channel). This filter allows frequencies below the set point to pass through. Adjust to match the subwoofer's frequency response and blend with your main speakers. Typical settings range from 80Hz to 100Hz.

5.3 Bass Boost

The bass boost control allows you to enhance low frequencies. Use this feature sparingly, as excessive bass boost can lead to distortion and potential speaker damage. Adjust in small increments (0/+6/+12 dB) using the included remote control.

6. MAINTENANCE

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

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No Power / Protection LED On	Blown fuse, poor power/ground connection, amplifier in protection mode.	Check in-line fuse and amplifier fuses. Verify power, ground, and remote wire connections. Check speaker wiring for shorts.
No Sound	RCA cables disconnected, gain too low, head unit settings, speaker wires disconnected.	Check RCA connections. Adjust gain. Verify head unit output. Check speaker wire connections.
Distorted Sound	Gain set too high, improper crossover settings, speaker impedance mismatch, damaged speakers.	Reduce gain. Adjust HPF/LPF settings. Verify speaker impedance. Inspect speakers for damage.
Amplifier Overheating	Insufficient ventilation, low impedance load, prolonged high volume use.	Ensure proper airflow around amplifier. Check speaker impedance. Reduce volume or allow amplifier to cool.

8. SPECIFICATIONS

Feature	Specification
Model Number	DX1800.5
Brand	Matrix
Number of Channels	5
Max Power Output	1800 Watts
RMS Power (4 Ohm)	125W x 4 Ch. + 480W x 1 Ch.
RMS Power (2 Ohm)	250W x 4 Ch. + 800W x 1 Ch.
Power Supply	PWM DC to DC
Stereo Stability	2 Ohm Stable
High Pass Filter (HPF)	Variable 40 Hz - 3 kHz
Low Pass Filter (LPF)	Variable 40 Hz - 250 Hz
Bass Boost	0/+6/+12 dB (Selectable)
Channel Separation	> 60 dB
Product Dimensions (L x W x H)	16.3 x 9.7 x 2 inches (41.4 x 24.6 x 5.1 cm)
Product Weight	3.2 kg (7.05 lbs)

Feature	Specification
Compliance	CE, RoHS, FCC
UPC	793276301031






9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the warranty card included with your product or visit the official Matrix website. Keep your proof of purchase for warranty claims.

For further assistance, you may contact Matrix customer support through their official channels.

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Related Documents - DX1800.5

	<p>AudioControl A1100.5 5-Channel Amplifier: Quick Start Guide & Features</p> <p>Comprehensive guide to the AudioControl A1100.5 five-channel amplifier, covering features, safety instructions, connection panel details, control explanations, installation steps, system diagrams, and specifications.</p>
	<p>Pioneer GM-D9705/GM-DX975 Class D 5-Channel Amplifier User Manual</p> <p>Comprehensive user manual for the Pioneer GM-D9705 and GM-DX975 Class D 5-channel car amplifiers, covering installation, connections, operation, safety precautions, and technical specifications. Learn how to properly connect and set up your Pioneer amplifier for optimal audio performance.</p>
	<p>AudioControl A1100.5 Five Channel Amplifier: Quick Start Guide & Installation</p> <p>Comprehensive quick start guide for the AudioControl A1100.5 five-channel amplifier, covering features, safety instructions, connection panel details, control panel functions, installation steps, power connections, system examples, valet mode, specifications, and warranty information.</p>
	<p>Crown CMA-1 Car Amplifier Installation Guide and Specifications</p> <p>Comprehensive installation instructions, wiring diagrams, troubleshooting tips, and technical specifications for the Crown CMA-1 mobile amplifier. Learn how to properly install and connect your CMA-1 for optimal performance.</p>
	<p>JL Audio XDM700/5 700W 5-Channel System Amplifier Owner's Manual</p> <p>Comprehensive owner's manual for the JL Audio XDM700/5, a 700W 5-channel car and marine audio system amplifier. Details installation, safety, connections, controls, specifications, and input sensitivity setup.</p>



[AudioControl EPICFIVE 5-Channel Amplifier Quick Start Guide](#)

A quick start guide for the AudioControl EPICFIVE 5-channel Class D car amplifier, detailing features, connections, safety instructions, operation, specifications, and warranty information.