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› Soundstream AR4.1800 Arachnid Series 1800W 4-Channel Amplifier User Manual

Soundstream AR4.1800

Soundstream AR4.1800 Arachnid Series Amplifier User Manual

Model: AR4.1800

1. INTRODUCTION AND OVERVIEW

This manual provides detailed instructions for the installation, operation, and maintenance of your Soundstream AR4.1800 Arachnid Series 4-channel full-range amplifier. The AR4.1800 is designed to deliver high-quality audio performance in a vehicle environment, featuring Class A/B amplification and a robust power supply.

For optimal performance and safety, please read this manual thoroughly before attempting installation or operation. Retain this manual for future reference.



Figure 1: Front view of the Soundstream AR4.1800 Arachnid Series Amplifier, showing input and output terminals.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the amplifier or vehicle:

- Disconnect the vehicle's negative battery terminal before any installation or wiring.
- 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.
- Install the amplifier in a location that allows for adequate ventilation to prevent overheating.
- Avoid mounting the amplifier in areas exposed to moisture or excessive vibration.
- If you are unsure about any part of the installation process, seek assistance from a qualified professional car audio installer.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- Soundstream AR4.1800 Amplifier
- Mounting Hardware
- User Manual (this document)

4. FEATURES

The Soundstream AR4.1800 amplifier includes the following key features:

- **Output Power:** 1800 Watts total power output.
- **Operation Modes:** 2-Ohm stereo and 4-Ohm bridged full-range operation.
- **Circuit Board:** Military-grade PCB with Pulse Width Modulated (PWM) MOSFET power supply.
- **Protection:** Direct short, thermal, and overload circuit protection.
- **Inputs:** High/speaker level and low-level/RCA input options.
- **Outputs:** Pre-amp low-level RCA outputs.
- **Indicators:** LED power (green) and protect (red) indicators for status monitoring.

5. INSTALLATION AND SETUP

Proper installation is crucial for the performance and longevity of your amplifier. It is recommended that installation be performed by a professional car audio technician.

5.1 Mounting Location

Choose a mounting location that:

- Provides adequate air circulation around the amplifier.
- Is protected from moisture and direct sunlight.
- Is secure and free from excessive vibration.
- Allows for short power and ground wire runs.

Common locations include under seats, in the trunk, or behind rear seats.

5.2 Wiring Connections

All wiring should be performed with the vehicle's battery disconnected.

1. **Power Wire (B+):** Connect a heavy-gauge power wire (e.g., 4-gauge) directly from the positive terminal of the vehicle's battery to the amplifier's B+ terminal. Install an appropriate fuse (not supplied) within 18 inches (45 cm) of the battery.
2. **Ground Wire (GND):** Connect a heavy-gauge ground wire (e.g., 4-gauge) from the amplifier's GND terminal to a clean, unpainted metal surface of the vehicle chassis. Ensure a solid, low-resistance connection. The ground wire should be as short as possible.
3. **Remote Turn-On Wire (REM):** Connect a smaller gauge wire (e.g., 18-gauge) from the amplifier's REM terminal to the remote turn-on output of your head unit. This wire turns the amplifier on and off with the head unit.
4. **Audio Input:**
 - **Low-Level (RCA):** Connect RCA cables from your head unit's pre-amp outputs to the amplifier's RCA

input jacks.

- **High-Level (Speaker Level):** If your head unit does not have RCA outputs, connect the speaker output wires from the head unit to the amplifier's high-level input terminals (if available and used).

5. **Speaker Output:** Connect your speakers to the amplifier's speaker output terminals. Ensure correct polarity (+ to + and - to -) and impedance matching (2-Ohm stereo or 4-Ohm bridged).

6. CONTROLS AND ADJUSTMENTS

The AR4.1800 amplifier features several controls for fine-tuning your audio system:

- **Gain Control:** Adjusts the input sensitivity of the amplifier to match the output level of your head unit. Start with the gain at minimum and slowly increase until desired volume is achieved without distortion.
- **Crossover (HPF/LPF):**
 - **High-Pass Filter (HPF):** Allows frequencies above the set point to pass through. Useful for protecting full-range speakers from low bass frequencies.
 - **Low-Pass Filter (LPF):** Allows frequencies below the set point to pass through. Useful for subwoofers.
- **Bass Boost:** Provides an increase in output at a specific low frequency. Use sparingly to avoid distortion and speaker damage.

7. OPERATING INSTRUCTIONS

Once installed and configured, operating the amplifier is straightforward:

1. Ensure all connections are secure and correct.
2. Turn on your vehicle's ignition and head unit. The amplifier's power LED (green) should illuminate.
3. Start with the head unit volume low and gradually increase it, adjusting the amplifier's gain control as needed to achieve a balanced sound without distortion.
4. Adjust crossover and bass boost settings to optimize sound quality for your specific speakers and listening preferences.
5. If the protect LED (red) illuminates, refer to the troubleshooting section.

8. TROUBLESHOOTING

If you experience issues with your amplifier, consult the following table:

Problem	Possible Cause	Solution
No Power (Power LED off)	Blown fuse, poor power/ground connection, no remote signal.	Check inline fuse near battery. Verify power, ground, and remote wire connections. Ensure remote wire receives 12V when head unit is on.
No Sound	RCA cables disconnected, speaker wires disconnected/shorted, gain too low, head unit settings.	Check RCA and speaker connections. Increase gain. Verify head unit output settings.

Problem	Possible Cause	Solution
Distorted Sound	Gain set too high, improper crossover settings, poor speaker connection, damaged speakers.	Reduce gain. Adjust crossover settings. Check speaker wiring for shorts or damage.
Amplifier Goes into Protect Mode (Protect LED on)	Overheating, speaker short circuit, impedance too low, DC offset.	Allow amplifier to cool down. Check speaker wiring for shorts. Verify speaker impedance matches amplifier's capabilities. Ensure adequate ventilation.
Excessive Heat	Inadequate ventilation, impedance too low, gain too high, prolonged high-volume operation.	Ensure proper airflow around the amplifier. Verify speaker impedance. Reduce gain. Operate at moderate volumes.

9. SPECIFICATIONS

Specification	Value
Model	AR4.1800
Brand	Soundstream
Number of Channels	4
Maximum Output Power	1800 Watts
Minimum Supply Voltage	9 Volts
Maximum Supply Voltage	16 Volts (DC)
Supply Current	22.5 Amps
Item Dimensions (L x W x H)	20 x 4 x 11 inches
Item Weight	3.9 Pounds
Material Type	Aluminum Alloy
Specification Met	FCC

10. WARRANTY AND SUPPORT

The Soundstream AR4.1800 amplifier is covered by a **1-year manufacturer's warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical support, or service inquiries, please contact Soundstream customer service or visit the official Soundstream website. Keep your proof of purchase for warranty validation.

You can find more information and support resources on the [Soundstream Brand Store](#).

