

Soundstream AR1.8000D

Soundstream AR1.8000D Arachnid Series Monoblock Amplifier User Manual

Model: AR1.8000D

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Soundstream AR1.8000D Arachnid Series Class D Monoblock Amplifier. This amplifier is designed for high-performance car audio systems, offering 1-ohm stable monoblock operation for maximum power output. Key features include:

- 1-ohm stable monoblock operation
- High/speaker level and low level/RCA input (200mV-6V)
- Variable 12dB high and low pass crossovers
- 12dB bass boost for low octave harmonics
- 180-degree phase shift for improved low octave dynamics
- 4-gauge power wire and 8-gauge speaker wire outputs
- Military-grade PCB with PWM MOSFET power supply
- Direct short, thermal, and overload circuit protection
- Dash-mount remote control included

Please read this manual thoroughly before attempting installation or operation to ensure proper use and to prevent damage to the amplifier or your vehicle.

2. SAFETY INFORMATION

WARNING: Improper installation or use of this product can result in serious injury or death. Professional installation is highly recommended.

- **Electrical Hazard:** Always disconnect the vehicle's battery negative terminal before making any power connections. Ensure all wiring is properly insulated and fused to prevent short circuits and fire hazards.
- **Ventilation:** Mount the amplifier in a location that allows for adequate airflow to prevent overheating. Do not cover the amplifier's heat sinks.
- **Moisture:** Avoid exposing the amplifier to moisture or water.

- **Hearing Protection:** Prolonged exposure to high sound pressure levels can cause permanent hearing loss. Use caution when adjusting volume levels.
- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. WHAT'S IN THE BOX

Upon unpacking your Soundstream AR1.8000D amplifier, please verify that all items are present:

- Soundstream AR1.8000D Amplifier
- Dash-mount remote control
- Hardware (mounting screws)
- User Manual



Image 3.1: Contents of the amplifier package, including the manual, remote, and mounting screws.

4. INSTALLATION AND SETUP

4.1 Mounting the Amplifier

Choose a secure mounting location that provides adequate ventilation and is protected from moisture. Ensure the amplifier is mounted firmly to prevent movement during vehicle operation. Avoid mounting on carpet or other materials that could obstruct airflow to the heat sinks.

4.2 Wiring Connections

Proper wiring is crucial for amplifier performance and safety. Refer to the diagrams below for correct connections.



Image 4.1: Power and speaker output terminals of the Soundstream AR1.8000D amplifier.

4.2.1 Power, Ground, and Remote Connections

- **+12V (Power):** Connect a 4-gauge power cable directly from the vehicle's positive battery terminal. Install an appropriate fuse (not included) within 18 inches of the battery.
- **GND (Ground):** Connect a 4-gauge ground cable from the amplifier to a clean, unpainted metal surface on the vehicle's chassis. Ensure a solid, low-resistance connection.
- **REM (Remote):** Connect an 18-gauge wire 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 your stereo.

4.2.2 Speaker Output Connections

- Connect your subwoofer(s) to the speaker terminals. The AR1.8000D is a monoblock amplifier, meaning it has a single channel output.
- Ensure the total impedance of your connected speakers is **1 ohm or higher** for stable operation. Refer to your subwoofer's specifications for impedance.
- Use 8-gauge speaker wire for optimal performance.



Image 4.2: Input and control panel of the Soundstream AR1.8000D amplifier.

4.2.3 Input Connections (RCA / High-Level)

- **RCA Input:** Connect RCA cables from your head unit's pre-amp outputs to the amplifier's **INPUT (L/R)** RCA jacks. The amplifier accepts low-level inputs from 200mV to 6V.
- **High-Level Input:** If your head unit does not have RCA outputs, use the high-level input connector (typically a multi-pin connector, not explicitly shown but implied by 'High/speaker level input' in features). Connect speaker wires from your head unit's speaker outputs to this connector.
- **Bridge Out:** The **BRIDGE OUT** RCA jacks allow you to daisy-chain the audio signal to another amplifier.

5. OPERATION AND ADJUSTMENTS

5.1 Control Panel Adjustments

The amplifier features several controls to fine-tune your audio system (refer to Image 4.2):

- **GAIN (Input Level):** Adjusts the input sensitivity of the amplifier to match the output of your head unit. Start with the gain at minimum and slowly increase until desired volume is achieved without distortion.
- **LPF (Low Pass Filter):** Controls the upper frequency limit of the amplifier's output, typically adjustable from 40Hz to 180Hz. Set this to allow only low frequencies to pass to your subwoofer.
- **SUBSONIC (High Pass Filter):** Filters out extremely low frequencies below the audible range, typically adjustable from 10Hz to 50Hz. This protects your subwoofer from over-excursion and improves sound quality.
- **FREQ (Bass Boost Frequency):** Selects the center frequency for the bass boost function.
- **BASS BOOST:** Increases the output level at the selected bass boost frequency, adjustable from 0dB to 12dB. Use sparingly to avoid distortion.
- **PHASE SHIFT:** (Not explicitly labeled on Image 4.2 but mentioned in features) This control allows you to adjust the phase of the subwoofer output by 180 degrees to ensure it blends seamlessly with your main

speakers.

5.2 Remote Level Control

The included dash-mount remote control allows for convenient adjustment of the amplifier's output level from the driver's seat.



Image 5.1: Dash-mount remote level control for the Soundstream AR1.8000D amplifier.

Connect the remote control cable to the **REMOTE** port on the amplifier's input panel (refer to Image 4.2). The knob adjusts the output level, typically acting as a secondary gain control.

6. MAINTENANCE

Your Soundstream AR1.8000D amplifier requires minimal maintenance to ensure long-term performance.

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners. Ensure ventilation fins are free of dust and debris.
- **Connections:** Regularly check all power, ground, remote, and speaker connections to ensure they are secure and free from corrosion. Loose connections can lead to poor performance or damage.
- **Environment:** Ensure the amplifier remains in a well-ventilated area, protected from extreme temperatures and moisture.

7. TROUBLESHOOTING

If you experience problems with your amplifier, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
No Power / No Indicator Light	Blown fuse Loose power/ground connection No remote turn-on signal	Check and replace fuse at battery and amplifier (if applicable). Verify all power and ground connections are secure. Check remote wire connection and head unit's remote output.
No Sound Output	Gain set too low RCA cables disconnected/faulty Speaker wires disconnected/shorted Amplifier in protection mode	Increase gain setting. Check RCA cable connections and integrity. Verify speaker wire connections and check for shorts. Refer to 'Amplifier in Protection Mode' section.

Problem	Possible Cause	Solution
Distorted Sound	Gain set too high Improper crossover settings Speaker impedance too low Damaged speakers	Reduce gain setting. Adjust LPF and Subsonic filters appropriately. Verify speaker impedance is 1 ohm or higher. Test speakers with another amplifier.
Amplifier in Protection Mode (Protect Light On)	Overheating Speaker short circuit Speaker impedance too low DC offset	Ensure adequate ventilation; allow amplifier to cool. Check speaker wiring for shorts. Verify speaker impedance is 1 ohm or higher. Consult a professional installer.

8. SPECIFICATIONS

The following table outlines the technical specifications for the Soundstream AR1.8000D Monoblock Amplifier:



Image 8.1: Top view of the Soundstream AR1.8000D amplifier.

Feature	Specification
Model Number	AR1.8000D
Output Power (Max)	8000 Watts
Number of Channels	1 (Monoblock)
Minimum Stable Impedance	1 Ohm
Input Sensitivity (Low Level)	200mV - 6V
Low Pass Filter (LPF)	40-180Hz (12dB/octave)
Subsonic Filter	10-50Hz (12dB/octave)
Bass Boost	0-12dB

Feature	Specification
Phase Shift	0-180 degrees
Power Supply	PWM MOSFET
Dimensions (L x W x H)	23 x 11 x 4 inches
Item Weight	4.7 pounds
Material	Metal and Plastic
Color	BLACK
UPC	709483054127

9. WARRANTY INFORMATION

Soundstream products are designed and manufactured to the highest quality standards. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Soundstream website. Keep your purchase receipt as proof of purchase for any warranty claims.

10. CUSTOMER SUPPORT

If you have any questions regarding the installation, operation, or troubleshooting of your Soundstream AR1.8000D amplifier that are not covered in this manual, please contact Soundstream customer support. You can find contact information and additional resources on the official Soundstream website.