

Soundstream SM4.1000D

Soundstream SM4.1000D Marine Grade Class D Amplifier Instruction Manual

Model: SM4.1000D | Brand: Soundstream

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Soundstream SM4.1000D Marine Grade Class D Amplifier. Please read this manual thoroughly before attempting installation or operation to ensure proper use and to prevent damage to the unit or your vehicle's electrical system. Keep this manual for future reference.

2. SAFETY INFORMATION

Always observe the following safety precautions during installation and operation:

- Disconnect the vehicle's negative battery terminal before starting any electrical work.
- Ensure proper grounding to prevent electrical shorts and damage.
- Use appropriate wire gauges 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.
- Protect all wiring from sharp edges and moving parts.
- If you are unsure about any part of the installation process, consult a qualified professional.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- Soundstream SM4.1000D Amplifier
- Instruction Manual

4. FEATURES

The Soundstream SM4.1000D amplifier offers the following key features:

- 90 watts RMS x 4 channels at 4 ohms
- 125 watts RMS x 4 channels at 2 ohms
- 250 watts x 2 channels bridged at 4 ohms
- Mosfet power supply for efficient operation

- Quick Disconnect RCA/High Level Wire Harness for simplified connections
- Preamp and speaker-level inputs for versatile source compatibility
- Variable high-pass and low-pass filters (35-250 Hz, 12 dB/octave) for precise audio tuning
- Marine-grade materials for durability in harsh environments

5. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and longevity of your amplifier. Follow these general guidelines:

5.1 Mounting the Amplifier

Choose a mounting location that is dry, well-ventilated, and protected from direct heat and moisture. The amplifier's compact size (7.5 x 3.88 x 1.5 inches) allows for flexible placement, such as under seats or in compartments. Ensure adequate airflow around the amplifier for cooling.



Figure 1: Top view of the Soundstream SM4.10000D amplifier, showcasing its compact design.



Figure 2: Side view of the Soundstream SM4.10000D amplifier, highlighting its slim profile.

5.2 Wiring Connections

The amplifier features quick-disconnect harnesses for power, speakers, and signal inputs. This simplifies installation and removal.



Figure 3: Detailed view of the input and output connections on the Soundstream SM4.10000D amplifier, including gain controls and crossover settings.

Power Connections:

- **+12V (Power):** Connect directly to the positive terminal of the vehicle's battery. Use an appropriate fuse (30A recommended) as close to the battery as possible.
- **GND (Ground):** Connect to a clean, unpainted metal surface of the vehicle's chassis. Ensure a solid connection to prevent noise and performance issues.
- **REM (Remote Turn-On):** Connect to the remote turn-on output of your head unit or an ignition-switched 12V source.

Signal Inputs:

The amplifier supports both preamp (RCA) and speaker-level inputs.

- **RCA Inputs:** Use high-quality RCA cables to connect the amplifier's input to the head unit's RCA outputs.
- **Speaker-Level Inputs:** If your head unit does not have RCA outputs, use the provided high-level input harness to connect directly to your head unit's speaker wires.

Speaker Outputs:

Connect your speakers to the amplifier's speaker output terminals. Observe correct polarity (+ to + and - to -) for each speaker. The amplifier can be configured for 4-channel stereo or 2-channel bridged operation.

6. OPERATING INSTRUCTIONS

Once installed, adjust the amplifier settings for optimal audio performance.

6.1 Gain Control

The gain control (labeled 'LEVEL' or 'GAIN') matches the amplifier's input sensitivity to the output of your head unit. Start with the gain set to minimum, then slowly increase it until you hear distortion, then back off slightly. This is not a volume control.

6.2 Crossover Settings

The SM4.10000D features variable high-pass (HPF) and low-pass (LPF) filters. These allow you to direct specific frequency ranges to your speakers, improving sound quality and protecting speakers from frequencies they cannot reproduce.

- **HPF (High-Pass Filter):** Allows frequencies above the set point to pass through. Useful for full-range speakers to

prevent low bass.

- **LPF (Low-Pass Filter):** Allows frequencies below the set point to pass through. Essential for subwoofers.
- **FULL:** Disables the crossover, allowing all frequencies to pass.

Adjust the frequency knobs (35-250 Hz) according to your speaker types and desired sound.

7. MAINTENANCE

To ensure the longevity and performance of your Soundstream SM4.1000D amplifier:

- Regularly inspect all wiring connections for corrosion or looseness.
- Keep the amplifier clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Avoid exposing the amplifier to extreme temperatures or direct water spray, despite its marine-grade construction.

8. TROUBLESHOOTING

If you experience issues with your amplifier, refer to the following common troubleshooting steps:

- **No Power:** Check the main fuse near the battery and the amplifier's internal fuse. Verify all power, ground, and remote turn-on connections.
- **No Audio Output:** Check all RCA or speaker-level input connections. Ensure the head unit is powered on and sending a signal. Verify speaker connections and polarity. Check gain settings.
- **Distorted Sound:** Reduce the gain setting. Check for proper crossover settings. Ensure speakers are not overloaded or damaged.
- **Overheating:** Ensure adequate ventilation around the amplifier. Check speaker impedance to ensure it matches the amplifier's capabilities.

If problems persist after following these steps, contact Soundstream customer support or a qualified installer.

9. SPECIFICATIONS

Feature	Specification
Model Number	SM4.1000D
RMS Power (4 Ohms)	90 watts x 4 channels
RMS Power (2 Ohms)	125 watts x 4 channels
RMS Power (4 Ohms Bridged)	250 watts x 2 channels
Amplifier Class	Class D
Number of Channels	4
Dimensions (L x W x H)	7.5 x 3.88 x 1.5 inches
Item Weight	2.15 pounds
Material	Marine-Grade Materials
Mounting Type	Boat Mount
Variable High-Pass Filter	35-250 Hz, 12 dB/octave
Variable Low-Pass Filter	35-250 Hz, 12 dB/octave

Inputs	Preamp (RCA) and Speaker-Level
Power Supply	Mosfet
UPC	709483051027, 638353483111

10. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation included with your purchase or visit the official Soundstream website. Keep your proof of purchase for any warranty claims.