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› Soundstream PN4.1000D 1000W 4-Channel Picasso Nano Series Class D Amplifier User Manual

Soundstream PN4.1000D

Soundstream PN4.1000D Amplifier User Manual

Model: PN4.1000D

1. INTRODUCTION AND OVERVIEW

Thank you for choosing the Soundstream PN4.1000D Picasso Nano Series Class D Amplifier. This amplifier is designed to deliver high-quality audio performance in a compact form factor, making it ideal for various car audio installations. It features a 4-channel configuration, Class D efficiency, and robust protection circuitry to ensure reliable operation.

This manual provides essential information for the proper installation, operation, and maintenance of your amplifier. Please read it thoroughly before attempting to install or operate the unit.



Image 1.1: Top view of the Soundstream PN4.1000D amplifier, showcasing its compact design and branding.

2. KEY FEATURES

- Picasso Nano Series 4-Channel Class D Car Amplifier
- RMS Power Rating: 4 ohms: 140 watts x 4 channels / 2 ohms: 250 watts x 4 channels

- Max power output: 500 watts
- 3-way protection circuitry (thermal, overload, and speaker short protection)
- Pulse Width Modulated MOSFET power supply
- 200mV-6V Low Level Input Sensitivity

3. WHAT'S IN THE BOX

Upon opening the package, please ensure all items are present and in good condition:

- Soundstream PN4.1000D Amplifier
- Mounting Hardware (screws, etc.)
- Wiring Harnesses (as applicable for high-level inputs)
- User Manual (this document)

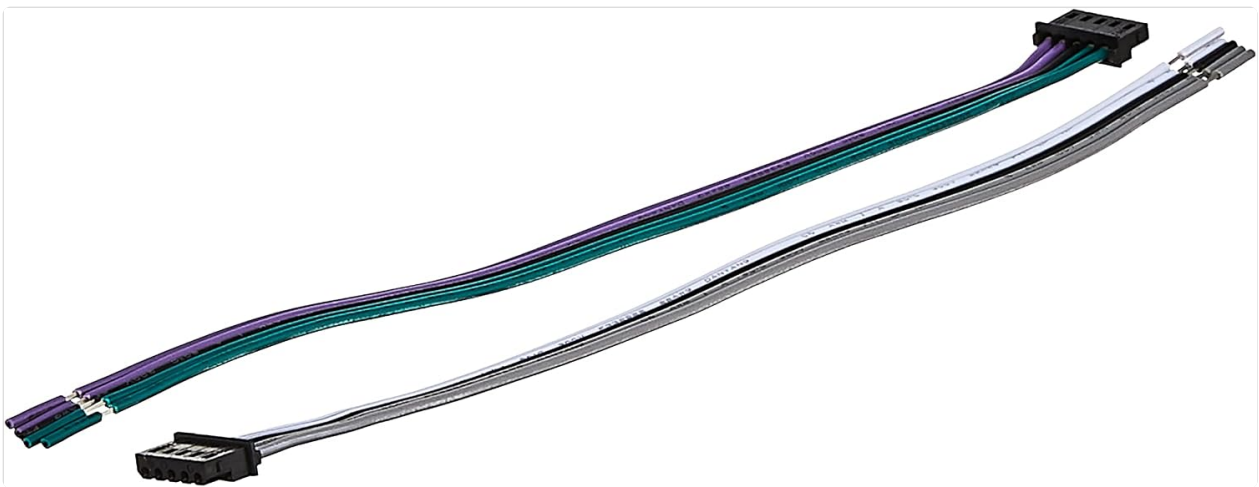


Image 3.1: Included wiring harnesses for the amplifier, typically used for high-level input connections.

4. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. If you are unsure about any part of the installation process, it is recommended to seek professional assistance.

4.1. Mounting Location

- Choose a dry, well-ventilated location away from direct sunlight and heat sources.
- Ensure adequate airflow around the amplifier for proper cooling.
- Mount the amplifier securely to prevent movement during vehicle operation.

4.2. Power Connections

Connect the amplifier to the vehicle's electrical system as follows:

- **B+ (12V Power):** Connect to the positive terminal of the vehicle's battery using a fuse or circuit breaker within 18 inches of the battery. Use appropriate gauge wire for the amplifier's power requirements.
- **GND (Ground):** Connect to a clean, unpainted metal surface of the vehicle chassis. Ensure a solid, low-resistance connection.
- **REM (Remote Turn-On):** Connect to the remote output of your head unit. This wire turns the amplifier on and off with your stereo.

4.3. Input Connections

The PN4.1000D supports both low-level (RCA) and high-level inputs.

- **Low-Level Input (RCA):** Use high-quality RCA cables to connect the amplifier's input jacks to the RCA outputs of your head unit.
- **High-Level Input:** If your head unit does not have RCA outputs, use the provided high-level input harness to connect directly to your speaker wires.

4.4. Speaker Connections

Connect your speakers to the amplifier's speaker output terminals. Ensure correct polarity (+ to + and - to -) for each speaker. The PN4.1000D is a 4-channel amplifier, allowing connection of up to four speakers or a combination of speakers and subwoofers (bridged mode).



Image 4.1: Side view of the amplifier showing the power, ground, remote, and speaker output terminals.

5. OPERATING INSTRUCTIONS

Once installed, the amplifier's settings can be adjusted to optimize audio performance.

5.1. 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, then slowly increase it until you hear distortion, then back off slightly. This is not a volume control.

5.2. Crossover Settings

The PN4.1000D features adjustable high-pass (HPF) and low-pass (LPF) filters for each channel pair.

- **HPF (High-Pass Filter):** Allows frequencies above the set point to pass through. Useful for full-range speakers to prevent low bass distortion.
- **LPF (Low-Pass Filter):** Allows frequencies below the set point to pass through. Essential for subwoofers to reproduce only bass frequencies.
- **FLAT:** Bypasses the crossover, allowing full-range signal to pass.

Adjust these settings based on the type of speakers connected to each channel to achieve balanced sound.



Image 5.1: Close-up of the amplifier's control panel, showing gain knobs, crossover switches (LPF, FLAT, HPF), and input connections for both front and rear channels.

6. MAINTENANCE

To ensure the longevity and optimal performance of your Soundstream PN4.1000D amplifier, follow these maintenance guidelines:

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure that the amplifier's cooling fins are free from dust and debris. Do not obstruct the airflow around the unit.
- **Connections:** Occasionally check all power, ground, remote, input, and speaker connections to ensure they are secure and free from corrosion.

7. TROUBLESHOOTING

If you experience issues with your amplifier, refer to the following common problems and solutions before contacting support.

7.1. No Power / Amplifier Does Not Turn On

- Check the in-line fuse or circuit breaker near the battery.
- Verify the 12V power (B+) connection at the amplifier.
- Ensure the ground (GND) connection is secure and to a clean metal surface.
- Check the remote turn-on (REM) wire for 12V when the head unit is on.

7.2. No Sound Output

- Verify all RCA or high-level input connections are secure.
- Check speaker wire connections for correct polarity and secure contact.
- Ensure the head unit is powered on and producing audio.
- Adjust the gain control; it may be set too low.

7.3. Distorted Sound

- Reduce the gain setting; it may be set too high.
- Check speaker impedance; ensure it is within the amplifier's supported range.

- Verify speaker wire connections for shorts or frayed wires.
- Adjust crossover settings to match your speakers.

7.4. Amplifier Goes into Protection Mode

- **Thermal Protection:** Ensure adequate ventilation. The amplifier may be overheating. Allow it to cool down.
- **Overload Protection:** Check speaker impedance. Ensure it is not below the minimum recommended load.
- **Speaker Short Protection:** Inspect all speaker wires for shorts to ground or to each other.

8. SPECIFICATIONS

Feature	Specification
Model Number	PN4.1000D
RMS Power (4 Ohms)	140 watts x 4 channels
RMS Power (2 Ohms)	250 watts x 4 channels
Max Power Output	500 watts
Number of Channels	4
Input Sensitivity	200mV - 6V
High-Pass Filter	80 Hz, 24 dB/octave
Low-Pass Filter	80 Hz, 24 dB/octave
Dimensions (L x W x H)	10.25 x 4.75 x 1.5 inches
Item Weight	5 pounds
Voltage	6 Volts (DC)
Certifications	CE, FCC, RoHS, WEEE

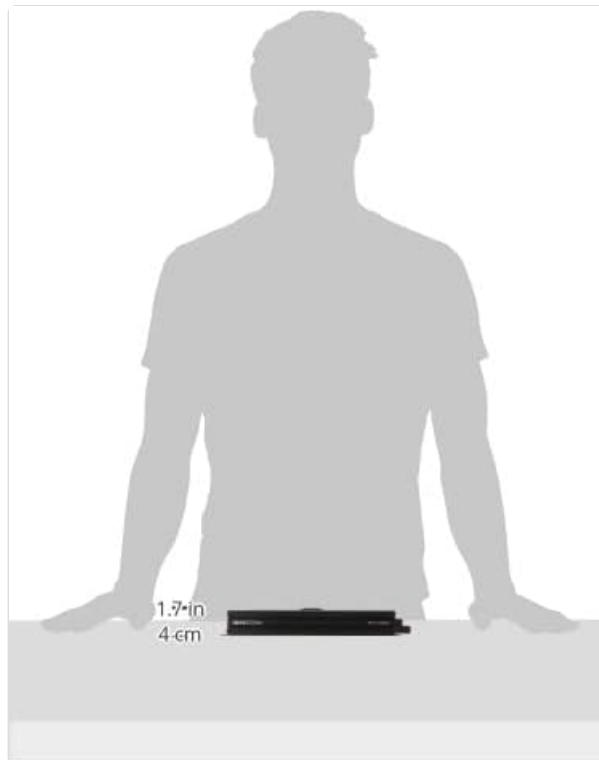


Image 8.1: Visual reference for the compact dimensions of the Soundstream PN4.1000D amplifier.

9. WARRANTY AND SUPPORT

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 technical support, service, or further inquiries, please contact Soundstream customer service or the authorized dealer from whom you purchased the product.

You can also refer to the official user manual PDF for additional details [Soundstream PN4.1000D User Manual \(PDF\)](#)