

Soundstream PN1.1000D

Soundstream PN1.1000D Picasso Nano Series Monoblock Class D Amplifier User Manual

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Soundstream PN1.1000D Picasso Nano Series Monoblock 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 audio system. Retain 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 beginning any wiring.
- Ensure all wiring is properly routed and secured to prevent pinching or damage.
- Use appropriate gauge wiring for power, ground, and speaker connections as specified.
- Mount the amplifier securely in a location that allows for adequate ventilation and is protected from moisture and excessive heat.
- Do not operate the amplifier if it is damaged or malfunctioning. Refer to the troubleshooting section or seek professional assistance.
- Avoid listening to audio at extremely high volumes for extended periods, as this can cause hearing damage.

3. PACKAGE CONTENTS

Verify that your package contains the following items:

- Soundstream PN1.1000D Monoblock Class D Amplifier
- Remote Level Control
- Mounting Hardware

- User Manual (this document)

4. PRODUCT OVERVIEW

4.1 Key Features

- Picasso Nano Series Monoblock Class D Car Amplifier
- RMS Power Rating: 4 ohms: 350 watts x 1 chan. / 2 ohms: 600 watts x 1 chan. / 1 ohm: 1000 watt x 1 chan.
- Variable low-pass filter: 50 - 250 Hz, 12 dB/octave
- Variable high-pass filter: 10 - 50 Hz, 12 dB/octave (often referred to as Sub-Sonic filter for monoblock amplifiers)
- Input sensitivity: 200mV - 6V
- Pulse Width Modulated (PWM) MOSFET power supply

4.2 Amplifier Layout and Controls

Familiarize yourself with the various inputs, outputs, and controls on your amplifier.



Figure 1: Overall View of the Soundstream PN1.1000D Amplifier. This image displays the compact design of the amplifier, featuring the Soundstream logo and Picasso Nano branding. The power and protection indicator lights are visible on the top panel.



Figure 2: Input and Control Panel. This view shows the amplifier's input and adjustment section. From left to right, you can see the HI-INPUT terminal, RCA input jacks (L/R), GAIN control (6V-0.2V), SUB SONIC filter (10Hz-50Hz), BASS BOOST control (0dB-12dB at 45Hz), LOW PASS filter (35Hz-250Hz), and the REM (Remote) port for the wired bass control.



Figure 3: Power and Speaker Output Panel. This image details the power and speaker connection terminals. On the left are the SPEAKER OUT terminals (+ and -). In the center are two 40A FUSE slots. On the right are the POWER INPUT terminals: 12V DC, GND (Ground), and REM (Remote Turn-On).



Figure 4: Remote Level Control. This image shows the wired remote level control unit, which allows for convenient adjustment of the amplifier's output level from the driver's seat. It features a rotary knob with 'Min' and 'Max' indicators.

5. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. If you are unsure about any part of the installation process, consult a professional car audio installer.

5.1 Mounting Location

- Choose a location that is dry, well-ventilated, and protected from direct sunlight or excessive heat.
- Ensure the mounting surface is sturdy enough to support the amplifier's weight.
- Allow sufficient space around the amplifier for air circulation to prevent overheating.

5.2 Wiring Connections

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

- **Power (12V DC):** Connect a heavy-gauge power cable (e.g., 4-gauge or larger, depending on total system power) directly from the positive terminal of the vehicle's battery to the amplifier's '12V DC' terminal. Install an in-line fuse holder within 18 inches of the battery.
- **Ground (GND):** Connect a heavy-gauge ground cable of the same size as the power cable from the amplifier's 'GND' terminal to a clean, unpainted metal surface of the vehicle chassis. Ensure a solid electrical connection.
- **Remote Turn-On (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 signals the amplifier to turn on and off with the head unit.
- **Audio Input (RCA or HI-INPUT):**
 - **RCA Input:** Connect RCA cables from your head unit's subwoofer or full-range pre-outs to the

amplifier's 'L' and 'R' RCA input jacks.

- **High-Level Input:** If your head unit does not have RCA outputs, use the 'HI-INPUT' terminal. Connect the speaker wires from your head unit's speaker outputs to the corresponding terminals on the high-level input connector.
- **Speaker Output:** Connect your subwoofer(s) to the amplifier's 'SPEAKER OUT' terminals. Ensure correct polarity (+ to + and - to -). Verify the total impedance of your speaker configuration is within the amplifier's supported range (1 ohm minimum for this model).

6. OPERATING INSTRUCTIONS

After installation, carefully adjust the amplifier settings for optimal sound performance.

6.1 Initial Setup and Gain Adjustment

- Turn the GAIN control on the amplifier to its minimum (counter-clockwise) position.
- Set your head unit's volume to about 75% of its maximum level.
- Play a dynamic piece of music.
- Slowly increase the GAIN control on the amplifier until you hear distortion, then back it off slightly until the sound is clear.
- The GAIN control is not a volume knob; it matches the amplifier's input sensitivity to the head unit's output voltage.

6.2 Filter Adjustments

- **LOW PASS (LPF):** This filter allows frequencies below the set point to pass through to the subwoofer. For most subwoofers, a setting between 80Hz and 120Hz is common. Adjust this to blend smoothly with your main speakers.
- **SUB SONIC (High-Pass Filter):** This filter removes extremely low frequencies that are inaudible and can cause damage to your subwoofer. Set this filter slightly below your subwoofer's resonant frequency or port tuning frequency (typically 20Hz-30Hz).

6.3 Bass Boost

- The BASS BOOST control provides an increase in output at 45Hz. Use this sparingly, as excessive bass boost can lead to distortion and potential damage to your subwoofer. Start at 0dB and increase gradually if desired.

6.4 Remote Level Control

- Connect the remote level control to the 'REM' port on the amplifier's control panel.
- Mount the remote control in a convenient location within reach of the driver.
- This control allows you to adjust the subwoofer output level from the driver's seat without accessing the amplifier directly.

7. MAINTENANCE

The Soundstream PN1.1000D amplifier requires minimal maintenance to ensure long-term performance.

- Periodically inspect all wiring connections to ensure they are secure and free from corrosion.
- Keep the amplifier clean and free of dust and debris. Use a soft, dry cloth for cleaning. Do not use liquid cleaners.

- Ensure that the amplifier's cooling fins are not obstructed to maintain proper heat dissipation.

8. TROUBLESHOOTING

If you experience problems with your amplifier, refer to the following table for common issues and solutions.

Problem	Possible Cause	Solution
Amplifier does not turn on (Power LED off)	No power, ground, or remote connection; Blown fuse	Check 12V DC, GND, and REM connections. Verify in-line fuse near battery and fuses on amplifier.
Amplifier turns on but no sound	No audio input signal; Speaker wires disconnected; Gain too low	Check RCA or high-level input connections. Verify speaker wiring. Adjust gain setting.
Distorted sound	Gain set too high; Improper filter settings; Speaker impedance mismatch	Reduce gain. Adjust LPF/Sub Sonic filters. Verify speaker impedance is 1 ohm or higher.
Amplifier overheats (Protection LED on)	Insufficient ventilation; Speaker impedance too low; Prolonged high volume operation	Ensure adequate airflow around amplifier. Check speaker impedance. Reduce volume or allow amplifier to cool.
Weak or no bass output	Sub Sonic filter set too high; LPF set too low; Phase issue	Adjust Sub Sonic filter to a lower frequency. Adjust LPF to a higher frequency. Check subwoofer phase setting on head unit if available.

9. SPECIFICATIONS

Detailed technical specifications for the Soundstream PN1.1000D amplifier:

Specification	Value
RMS Power Rating (4 ohms)	350 watts x 1 channel
RMS Power Rating (2 ohms)	600 watts x 1 channel
RMS Power Rating (1 ohm)	1000 watts x 1 channel
Variable Low-Pass Filter	50 - 250 Hz, 12 dB/octave
Variable High-Pass Filter (Sub-Sonic)	10 - 50 Hz, 12 dB/octave
Input Sensitivity	200mV - 6V
Power Supply Type	Pulse Width Modulated MOSFET
Number of Channels	1 (Monoblock)
Item Dimensions (L x W x H)	10.25 x 4.75 x 1.5 inches
Item Weight	5 pounds

Specification	Value
Minimum Supply Voltage	9 Volts (DC)
Maximum Supply Voltage	16 Volts (DC)
UPC	709483050204

10. WARRANTY AND SUPPORT

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