

## Soundstream BXT4.2000

# Soundstream BXT4.2000 4-Channel Amplifier User Manual

Model: BXT4.2000

## INTRODUCTION

Thank you for choosing the Soundstream BXT4.2000 4-Channel Amplifier. This manual provides essential information for the proper installation, operation, and maintenance of your amplifier. Please read this manual thoroughly before attempting installation or operation to ensure optimal performance and safety.

The BXT4.2000 is a 4-channel, 2000W Class AB amplifier designed to enhance your car audio system. It features advanced sound processing options, including a Bass Reconstruction Processor, to restore and boost lower frequency harmonics for a richer audio experience.

## SAFETY INFORMATION

- Always disconnect the vehicle's battery negative terminal before making any electrical connections.
- Ensure all wiring is properly routed and secured to prevent damage or short circuits.
- Use appropriate gauge wiring for power and ground connections as specified in the installation section.
- 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 contact qualified service personnel.
- Avoid listening to audio at excessively high volumes for prolonged periods, as this can cause hearing damage.

## PRODUCT OVERVIEW

The Soundstream BXT4.2000 amplifier features a robust design with clearly labeled connection and adjustment panels for ease of installation and tuning.



Figure 1: Soundstream BXT4.2000 4-Channel Amplifier, showing its overall compact design.

The amplifier is equipped with various inputs, outputs, and controls to allow for precise audio customization. The following image details the connection and adjustment panels.

# Connection Side Panel



# Input/Adjustments Side Panel

Figure 2: Detailed view of the amplifier's connection side panel (top) and input/adjustments side panel (bottom).

## SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your amplifier. If you are unsure about any step, consult a professional installer.

### 1. Mounting Location

Choose a dry, well-ventilated location away from direct sunlight and heat sources. Ensure sufficient airflow around the amplifier. Secure the amplifier firmly to a solid surface using appropriate hardware.

### 2. Power Connections (Connection Side Panel)

Refer to the 'Connection Side Panel' in Figure 2 for these connections.

- **GND (Ground):** Connect this terminal to a clean, unpainted metal surface of the vehicle's chassis. The ground wire should be as short as possible and of the same gauge as the power wire.
- **REM (Remote Turn-On):** Connect this terminal to the remote output wire from your head unit. This wire turns the

amplifier on and off with your car's audio system.

- **+12V (Power Input):** Connect this terminal directly to the positive (+) terminal of your vehicle's battery. An in-line fuse holder with the specified fuse rating (40A x 2) must be installed within 18 inches (45 cm) of the battery.
- **FUSE:** The amplifier is equipped with two 40A fuses. Ensure these are correctly installed. Replace only with fuses of the same type and rating.

### 3. Speaker Outputs (Connection Side Panel)

Refer to the 'Connection Side Panel' in Figure 2 for these connections.

- Connect your speakers to the "SPEAKERS OUTPUTS" terminals. The amplifier supports 4-channel stereo operation or 2-channel bridged operation.
- **Stereo Mode:** Connect each speaker to its corresponding RIGHT or LEFT positive and negative terminals.
- **Bridged Mode:** For higher power output to subwoofers or single speakers, connect the speaker across the BRIDGE terminals (typically the positive of one channel and the negative of the adjacent channel, as indicated on the amplifier). Ensure the speaker impedance is suitable for bridged operation (typically 4Ω minimum).

### 4. Audio Input (Input/Adjustments Side Panel)

Refer to the 'Input/Adjustments Side Panel' in Figure 2 for these connections.

- Connect the RCA output cables from your head unit or audio source to the "INPUT" RCA jacks on the amplifier. Ensure correct channel matching (Right to Right, Left to Left).

## OPERATING INSTRUCTIONS AND ADJUSTMENTS

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The 'Input/Adjustments Side Panel' (Figure 2) provides controls for fine-tuning the amplifier's output.

### 1. Gain Control

- **GAIN (MIN/MAX):** This control matches the amplifier's input sensitivity to the output level of your head unit. Start with the gain set to minimum (MIN). Play a familiar track at about 75% of your head unit's maximum volume. Slowly increase the amplifier's gain until you hear distortion, then back off slightly. This ensures maximum clean output.

### 2. Crossover Settings

The BXT4.2000 features adjustable crossovers for precise frequency management.

- **HPF (High Pass Filter):** This filter allows frequencies above the set point to pass through, blocking lower frequencies. Adjustable from 120Hz to 3KHz. Use for full-range speakers to prevent them from playing bass frequencies they cannot reproduce effectively.
- **LPF (Low Pass Filter):** This filter allows frequencies below the set point to pass through, blocking higher frequencies. Adjustable from 50Hz to 250Hz (Rear channels only). Use for subwoofers to ensure they only reproduce bass frequencies.
- **FULL:** Bypasses the crossover, allowing the full frequency range to pass through.

### 3. Bass Boost (Rear Channels Only)

- **BASS BOOST (+6dB/+12dB/0):** This control allows you to increase the bass output at a specific frequency (typically 50Hz). Use sparingly to avoid distortion. The amplifier offers 0dB, +6dB, and +12dB boost options.

### 4. Power/Protect Indicators

- **POWER (Green LED):** Illuminates when the amplifier is powered on and operating normally.
- **PROTECT (Red LED):** Illuminates when the amplifier enters protection mode due to a fault (e.g., short circuit, overheating, low voltage). If this LED lights up, immediately turn off your audio system and investigate the cause.

## SPECIFICATIONS

Feature	Specification
Max Power	2000 Watts
RMS Power @ 4Ω	110W x 4
RMS Power @ 2Ω	175W x 4
RMS Bridged @ 4Ω	350W x 2
Low Pass Filter (Rear)	50Hz-250Hz
High Pass Filter (Front/Rear)	120Hz-3KHz
Bass Boost (Rear)	0-6-12dB
Bass Boost Frequency (Rear)	50Hz
Frequency Response	20Hz-20KHz
Signal-to-Noise Ratio (S/N)	105dB
Input Sensitivity	200Mv-6V
Total Harmonic Distortion (THD)	<0.05%
Operation Voltage	9V-16V DC
Fuse Rating	40A x 2
Dimensions (L x W x H)	14.50" x 7.5" x 2.25"
Item Weight	6 pounds
Number of Channels	4

## TROUBLESHOOTING

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

- **No Power / Amplifier Not Turning On:**
  - Check the +12V power, GND, and REM connections for proper contact and voltage.
  - Verify the in-line fuse near the battery and the fuses on the amplifier are intact.
  - Ensure the remote turn-on wire from the head unit is providing +12V when the head unit is on.
- **Protect LED Illuminates:**
  - **Short Circuit:** Check speaker wires for shorts to ground or to each other. Verify speaker impedance is within the amplifier's acceptable range.
  - **Overheating:** Ensure the amplifier has adequate ventilation. Reduce gain settings if operating at high volumes for extended periods.
  - **Low/High Voltage:** Check vehicle battery voltage and charging system.
- **No Sound Output:**

- Check all RCA input connections from the head unit to the amplifier.
  - Verify speaker connections are secure and correctly wired.
  - Ensure the head unit is powered on and outputting audio.
  - Adjust gain settings.
- **Distorted Sound:**
    - Reduce the amplifier's gain setting.
    - Check for proper crossover settings; incorrect settings can cause distortion.
    - Ensure speaker impedance matches amplifier requirements.
    - Verify the audio source is not distorted.

## MAINTENANCE

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The Soundstream BXT4.2000 amplifier requires minimal maintenance to ensure long-term performance.

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth to remove dust. Do not use harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure that the amplifier's cooling fins are free from obstructions to allow for proper heat dissipation.
- **Connections:** Occasionally check all power, ground, remote, and speaker connections to ensure they remain tight and free from corrosion.
- **Fuse Replacement:** If a fuse blows, replace it only with a fuse of the exact same type and rating (40A). Using an incorrect fuse can damage the amplifier or cause a fire.

## WARRANTY AND SUPPORT

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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. For technical support or service inquiries, please contact Soundstream customer service or your authorized dealer.

When contacting support, please have your product model number (BXT4.2000) and purchase information readily available.