

# **SOUNDSTREAM<sup>®</sup>**

*T E C H N O L O G I E S*

## **BX-4EQ**

**4 BAND GRAPHIC EQUALIZER  
BASS ENHANCER**

**Owner's Manual  
and  
Installation Guide**

# Congratulations!

Congratulations on purchasing the **SOUND STREAM BX-4EQ**. You are now the proud owner of the finest and most accurate 4 Band Graphic Equalizer - Bass Enhancer & restoration system.

Whether your interest is in Beethoven's kettle drums, in Miles Davis' trumpet or in the percussion of Rap lyrics, the BX-4EQ will restore those long lost missing bass notes, with amazing accuracy and clarity.

The BX-4EQ is designed for dash mounted, which permits instant adjustments easily.

**Model and Serial #** \_\_\_\_\_ **Installation Shop** \_\_\_\_\_

**Dealer's Name** \_\_\_\_\_ **Installation Date** \_\_\_\_\_

**Date of Purchase** \_\_\_\_\_

**CAUTIONS!** Prolonged listening at extremely high levels may result in hearing loss. Even though your car audio system with your new **Soundstream BX-4EQ** 4 Band Graphic Equalizer - Bass Enhancer sounds better than anything you've ever heard, exercise caution to prevent hearing damage.

## Features

**Bass Driver:** The BX-4EQ contains a Bass Driver circuit that accurately recreates and injects Low frequency information back into the signal path. What that means in everyday terms is that the BX-4EQ will give more bass impact to your best compact discs or even your old tapes.

**Bass Equalization Circuit:** The BX-4EQ has a unique equalization circuit that contours the restored bass to your speaker systems.

**Dash Mount :** The BX-4EQ is designed for Dash Mountable, that allows you to enjoy the effects of the BX-4EQ without having to leave the driver's seat.

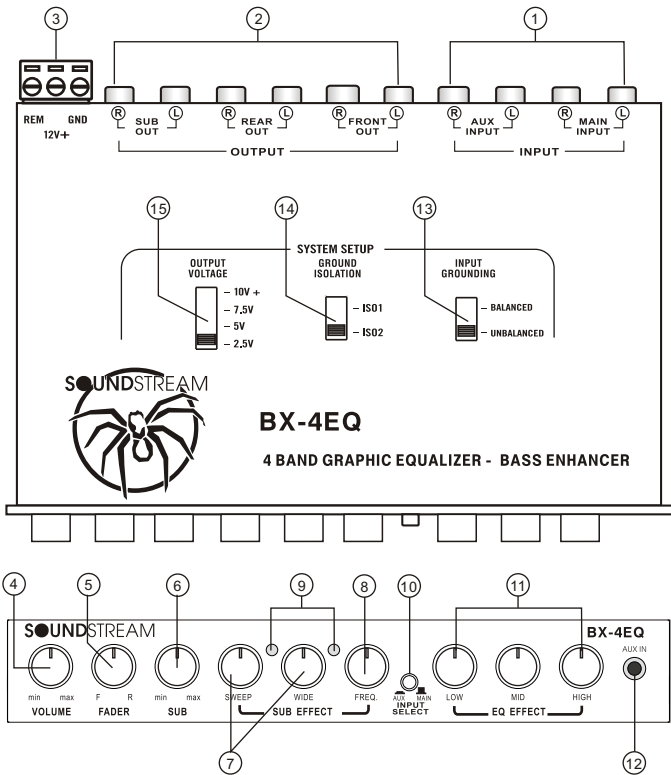
**Bass Maximizer Indicator:** Not only does The BX-4EQ provide good music to your ears, but it also gives you some visual enjoyment as well. On the front panel of the BX-4EQ, there are two LED indicators that flash when the bass maximization circuit is activated.

**PFM Subsonic Filter Switch:** This has the ability to fine tune the bass response of any system. Why waste power on nasty subsonic information when the PFM Subsonic Filter Switch can help you to clean things up?

**Bass Output Control:** The BX-4EQ has the ability to produce large amount of deep, mind shattering bass without damaging your speakers. The Bass Output Control circuit allows the BX-4EQ to maximize the bass output of any autosound audio system while restraining destructive bursts.

**Bass Line Level Matching:** The BX-4EQ has 4 Levels of signal voltage adjustment to match the rest of the system seamlessly.

# Functions



1. **Inputs:** The inputs of The BX-4EQ use a balanced input circuit to help minimize induced noise. It is also designed to handle very high signal voltages up to 15 volts.
2. **Outputs:** These RCA connectors should be connected to the next component after the BX-4EQ such as a crossover or amplifier. Just remember, the BX-4EQ should go inline before a crossover.
3. **Power Connector**
4. **Master Volume Control:** This is the main control to adjust the output level.
5. **Preamp Fader Control:** This control adjusts the volume between the front and rear output in 4-channel systems.
6. **Subwoofer Volume Control:** This adjusts the level of the subwoofer output.
7. **Para-Bass Controls:** These 2 knobs control the Para-Bass functions of the BX-4EQ. The SWEEP knob allows you to pick the center frequency that you want the BX-4EQ bass restoration circuit to maximize. The WIDE knob adjusts how wide of a frequency range the BX-4EQ will effect.
8. **The PFM Subsonic Filter Switch:** The BX-4EQ utilizes a PFM Subsonic Filter Control which will help with speaker control and amplifier power management. This PFM Subsonic Filter Control is variable from 35Hz - 80Hz. On most systems, setting the control at 35Hz is fine. If you want to protect your speaker system even more, you should try a higher frequency. Often a higher frequency actually sounds louder and clearer.

**9. Bass Maximizer Indicator:** These two LED indicators flash when the bass maximization circuit is activated.

**10. Input Selector Switch:** This switch selects the AUX or CD input.

**11. Frequency Band Controls :** Adjusts (cut or boost) the level of the three (LOW/ MID/ HIGH) frequency bands up to +/-18dB

**12. Aux Input.**

**13. Input Grounding Selector:** For most systems you can set this switch at the BALANCED position. In some systems, the source unit may look for a ground through the RCA connectors. In this event, you should go ahead and change the setting to the UNBALANCED position.

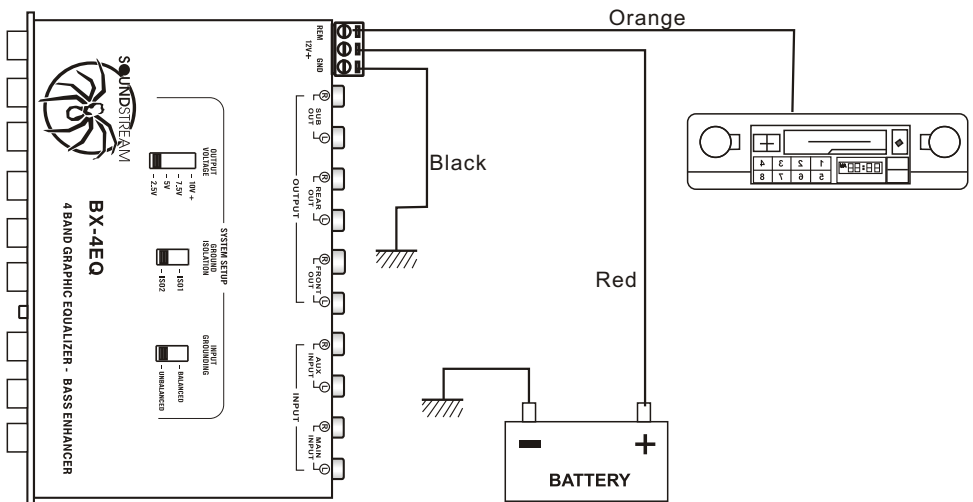
**14. Ground Isolation Selector:** Occasionally alternator whine may appear in a system because the source unit and amplifier may use different grounding. To help in this situation, we have provided alternative grounding selector.

**15. Output Voltage:** Not all systems are designed the same, some systems are designed strictly for SPL (Sound Pressure Level) while others are a little more tame. The Bass Maximizer circuit can either increase or decrease the signal voltage of the Bass Restoration Circuit. Depending upon your system, you may change this selector switch to a higher or lower setting to maximize your bass output and protect your speakers.

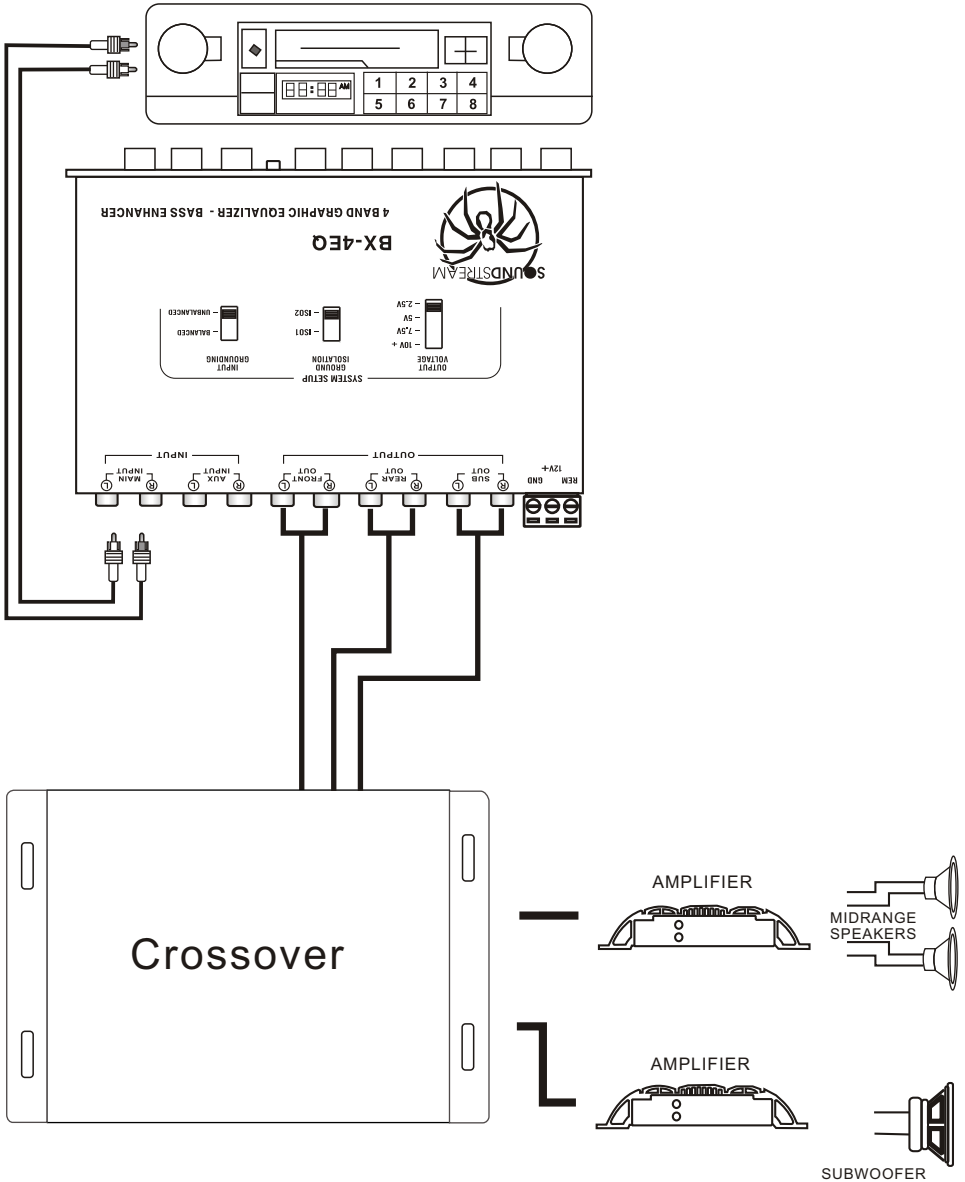
## Electronic Connections & Wiring

### Power connection

- **B+(12V)** : Connect to the car battery or other power source.
- **REMOTE** : Connect to remote activating (12V DC) wire of car stereo or equalizer.
- **GND** : Connect to the car chassis for ground connection.



# Signal Connection



**NOTE:** For signal connection, the output RCA connectors should be connected to the next component after the BX-4EQ, such as a crossover, equalizer, or amplifier. Just remember, the BX-4EQ should go inline before a crossover.

## Adjusting the Para-Bass Controls

The bass response in a system is affected by four factors:

- (1) The acoustics of the vehicle
- (2) The locations of the speakers
- (3) The music material
- (4) Speakers and speaker enclosures.

Because of the variations in the recording process, we developed BX-4EQ to help restore any low frequencies lost during the recording process, however, the acoustics of various environments are different.

The **Sweep** control allows you to select a center frequency ( the frequency most affected) between 27 and 63 Hz The **Width** control then allows you to control the shape of the filter centered around the **Sweep** frequency.

## Setting The Output Voltage

The BX-4EQ is the most powerful bass component. This device is equipped with several different Bass Output selections. If you should need to change the settings, Please use the chart below for guidance. It is recommended : listen to the factory setting before changing your Bass Output settings.

### Recommended Settings

<u>Setting</u>	<u>Amplifier Input Voltage</u>	<u>Minimum Speaker Size</u>
2.5Volt	3Volt or less	8 "
5Volt	5Volt or less	10 "
7.5Volt	7.5Volt or less	12 "
10Volt	Oh My Gosh !!!!!!!!!!!!!!!!	

## Specifications

Maximum Input Level .....	15 V rms
Maximum Output Level.....	13.5V peak
Frequency Response.....	10Hz - 100KHz ; +/-1dB
Total Harmonic Distortion.....	0.003%
Signal to Noise Ratio.....	-130dB
Balanced Input Noise Rejection.....	>60dB
Input Impedance.....	10 Kohm
Output Impedance.....	150 Ohms
Power Supply.....	High headroom PWM
Power draw.....	150mA
Recommend fuse rating.....	1 Amp

## Trouble Shooting Guide

If the Unit does not turn-on, and / or the power indicator LED is NOT illuminated, do this:

- 1) Check and make sure that B+ and GND are not reversed
- 2) Check that all power wires are properly connected and has the appropriate potential (11- 16 volts)
- 3) Check that the fuse is intact.

If you experience high audible distortion or low output volume:

- 4) Check that the input and output levels are set correctly. Input should match the source and output should match the sensitivity of the next in-line component.

If you experience whining or engine noises:

- 5) Verify that the GND connection is secure, the conductor (wire) is not too thin and unnecessarily long.
- 6) Check that the B+ wire is not too thin and unnecessarily long.
- 7) Change the power source; try taking power from a different point.