



BX-20Z
BASS PROCESSOR

Owner's Manual
and
Installation Guide

Congratulations!

Congratulations on purchasing the **SOUND STREAM BX-20Z**. You are now the proud owner of the finest and most accurate bass enhancing & restoration system available.

Whether your interest is in Beethoven's kettle drums, in Miles Davis' trumpet or in the percussion of Rap Music, the BX-20Z will restore those long lost missing bass notes, with amazing accuracy and clarity.

There's a dash mounted level control unit which permits instant adjustments; whether it's because your passenger is not as much of a "bass-head" as you are or for whatever reason you want to turn it down a bit, this handy knob does the trick.

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-20Z Bass Processor sounds better than anything you've ever heard, exercise caution to prevent hearing damage.

Features

Bass Restoration: The BX-20Z contains a Bass Restoration circuit that accurately recreates and injects Low frequency information back into the signal path. What that means in everyday terms is that the BX-20Z will give more bass impact to your best compact discs or even your old tapes.

Bass Equalization Circuit: The BX-20Z has a unique equalization circuit that contours the restored bass to your speaker subwoofers.

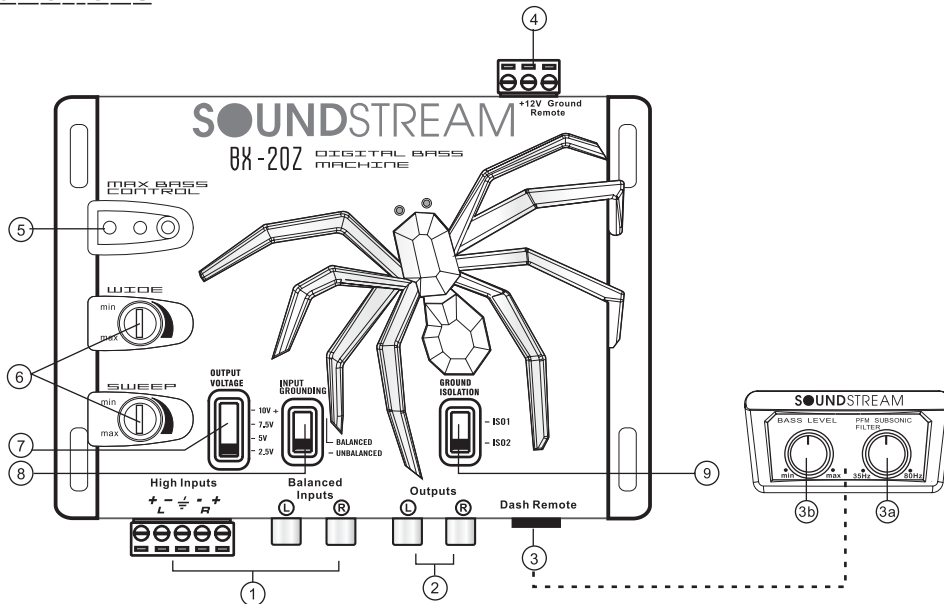
Dash Mount Remote Control: The BX-20Z comes with a Dash Mountable Remote Control that allows you to enjoy the effects of the BX-20Z without having to leave the drivers seat. The Dash Mount Control has a LED indicator. This LED will grow brighter as you add more bass or dimmer when you decrease it.

Bass Maximizer Indicator: Not only does The BX-20Z provide good music to your ears, but it also gives you some visual enjoyment as well. On the Chassis of the BX-20Z, there are three LED indicators that flashes when the bass maximization circuit is activated.

PFM Subsonic Filter Switch: This unique feature is legendary with its 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 and protect subwoofers.

Bass Output Control: The BX-20Z has the ability to produce large amount of deep, mind shattering bass without damaging your speakers. The Bass Output Control circuit allows the BX-20Z to maximize the bass output of any autosound audio system while restraining destructive bursts.

Functions



1. Inputs: The inputs of The BX-20Z use a balanced input circuit to help minimize induced noise. They are 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-20Z, such as a crossover, equalizer, or amplifier. Just remember, the BX-20Z should go inline before a crossover.

3. Dash Remote Control

3a. The PFM Subsonic Filter Control: The BX-20Z utilizes a PFM Subsonic Filter Control which will help with speaker control and amplifier power management. This PFM Subsonic Filter Control can be set with frequency selections from 35Hz-80Hz. On most systems, setting 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 cleaner.

3b. Bass Level Control

4. Power Connector

5. Bass Maximizer Indicator: These three LED indicators flash when the bass maximization circuit is activated.

6. Para-Bass Controls: These 2 knobs control the Para-Bass functions of the BX-20Z. The SWEEP knob allows you to pick the center frequency that you want the BX-20Z bass restoration circuit to maximize. The WIDE knob adjusts how wide of a frequency range the BX-20Z will effect.

7. 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 opt to change the Switch to a higher or lower setting to maximize your bass output and protect your speakers. In most systems, the factory setting will suit you fine. We recommend you to try the factory setting first.

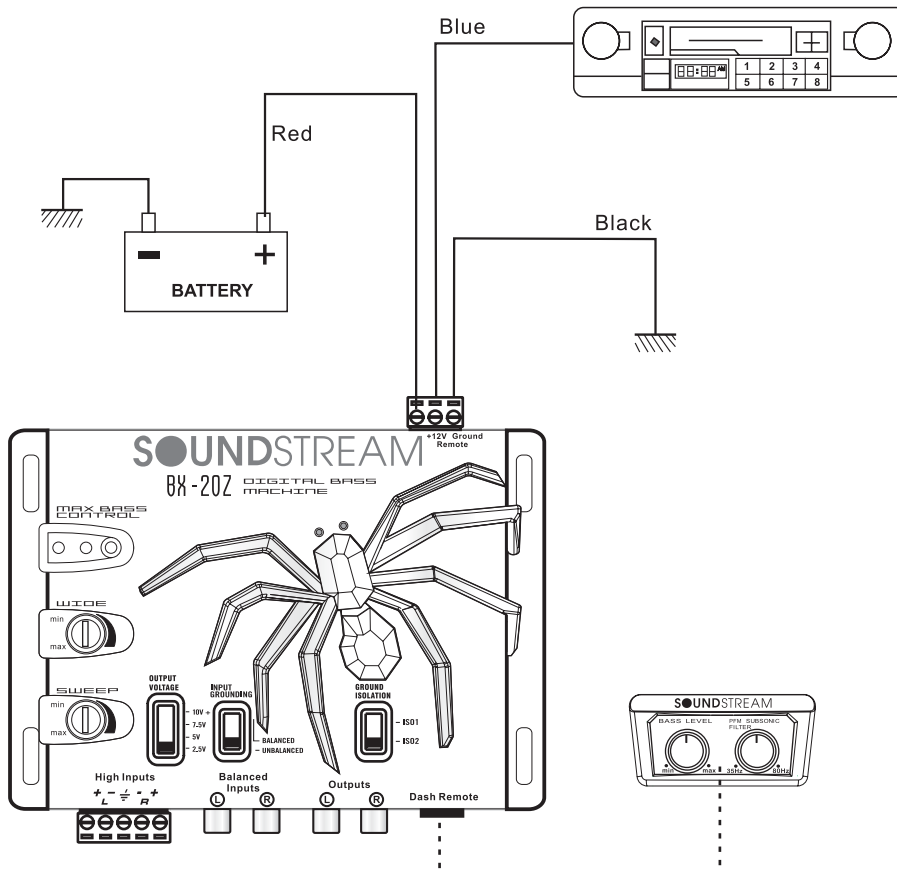
8. Input Grounding: For most systems you can leave this jumper set in the BALANCED position. In some systems, the source unit may look for a ground through the RCA connectors. In this event, you should go ahead and change the jumpers to the UNBALANCED position.

9. Ground Isolation: 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 an alternative grounding selector.

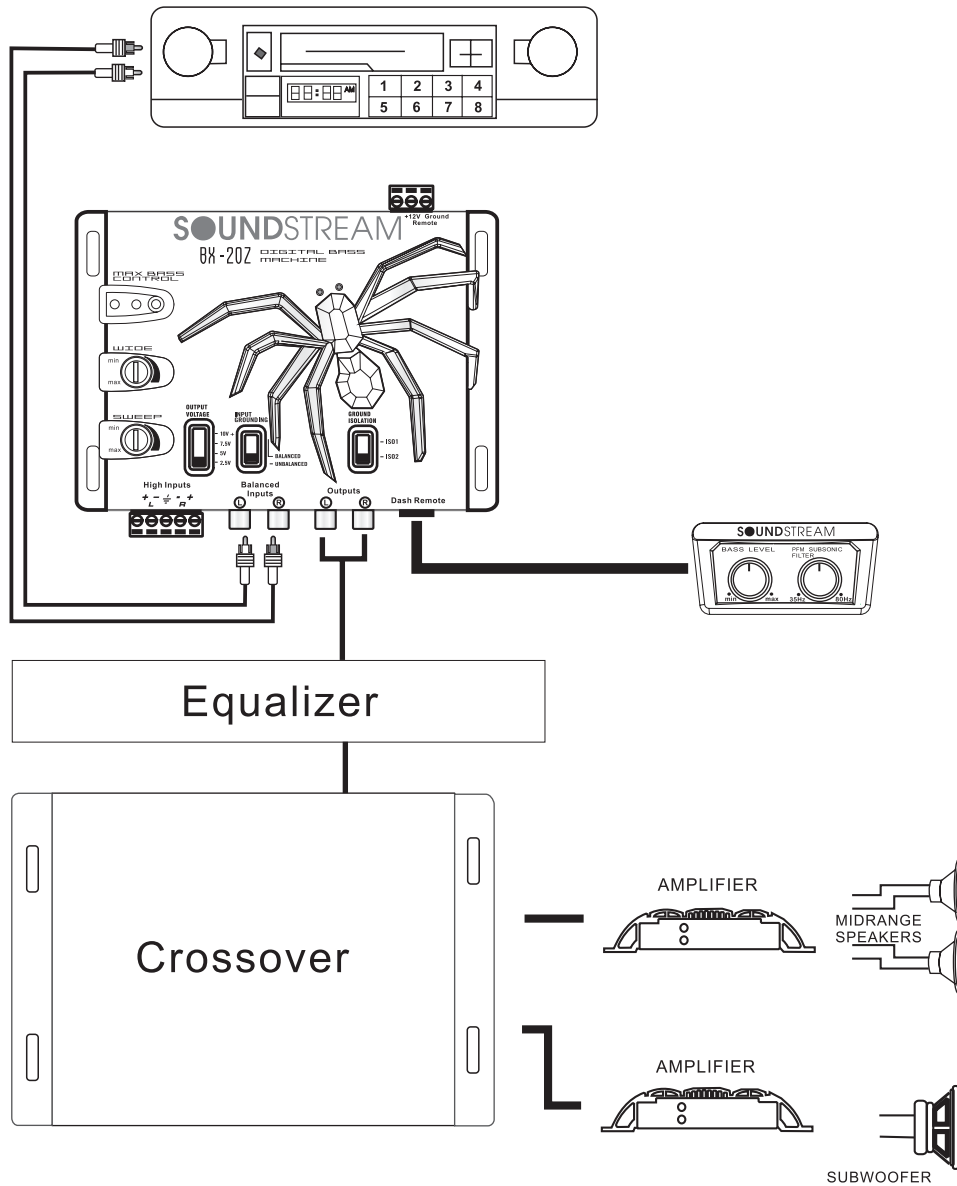
ELECTRONIC CONNECTIONS & WIRING

Power connection

- **B+(12V)** : Connect a red wire to the car battery or other power source.
- **REMOTE** : Connect an blue wire to remote activating (12V DC) wire of car stereo or equalizer.
- **GND** : Connect a black wire 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-20Z, such as a crossover, equalizer, or amplifier. Just remember, the BX-20Z 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
- (4) Speakers and speaker enclosures.

Because of the variations in the recording process, we developed BX-20Z 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 Bass Output Control

The BX-20Z 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 to 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 host.
- 5) Check the crossover settings; make sure they are correct; for high "Q" systems, set the crossover half an octave above the desired point and for low "Q" systems, set it 1 octave or more above.

If you experience whining or engine noises:

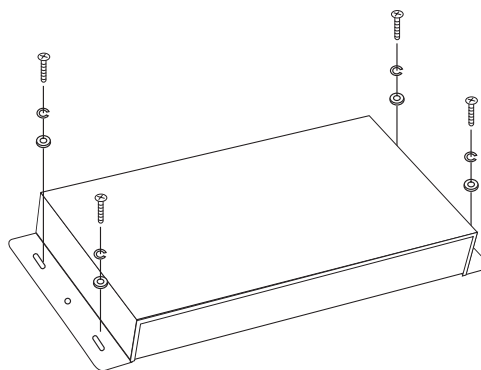
- 6) Verify that the GND connection is secure and the conductor (wire) is not too thin and unnecessarily long.
- 7) Check that the B+ wire is not too thin and unnecessarily long.
- 8) Change the power source; try taking power from a different point.

Installation

SCREW

SPRING WASHER

PLAIN WASHER



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