



SX210

*2 Way Electronic Crossover
with Remote Subwoofer Level Control*

**Congratulations on your
purchase of a Sound Storm
Laboratories signal processor.**

It has been designed, engineered
and manufactured to bring you the
highest level of performance and
quality, and will afford you years of
listening pleasure.

Thank you for making
Sound Storm Laboratories your
choice for car audio entertainment!

USER'S MANUAL

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How a crossover is used

The Sound Storm Laboratories SX210 is a high-fidelity signal processor that allows you to divide a stereo audio input signal into two frequency ranges: a highpass output and a subwoofer output.

Both outputs are stereo. For use in systems where there is a single mono subwoofer, the SX210 features a circuit which merges the left and right subwoofer channels so that the signal presented to the left and right subwoofer outputs is mono.

For improved time alignment, the subwoofer channel also features a selector for switching the subwoofer output signal phase.

This crossover intended for use in a car audio system which includes amplifiers in the signal path after the head unit.

Installation

Choose a mounting location where the unit will not distract or otherwise interfere with the driver's ability to control the vehicle.

Use only the installation parts and hardware provided with the unit to ensure proper installation. Using other parts can cause malfunction and possible damage to your crossover.

Avoid installing the unit in a location which is subject to high temperatures, direct sunlight, hot air from such sources as heaters or exhaust lines, or where it will be subject to contact with dust, dirt, moisture or excessive vibration.

Making electrical and audio connections

Using the screw terminals provided, connect the following wires:

+12V:

Use a minimum 16GA wire and connect it directly to the vehicle's (+) battery terminal, with a inline 3A fuse within 18 inches of the battery.

GND (Ground):

Use a minimum 16GA wire and connect it to a clean, solid chassis ground point as close to the crossover as possible.

REM (Remote):

Use a minimum 16GA wire and connect it to the Remote Turn-On lead of your head unit.

Audio Cables:

Use high quality RCA cables. Make connections as shown in the diagram shown elsewhere in this manual.

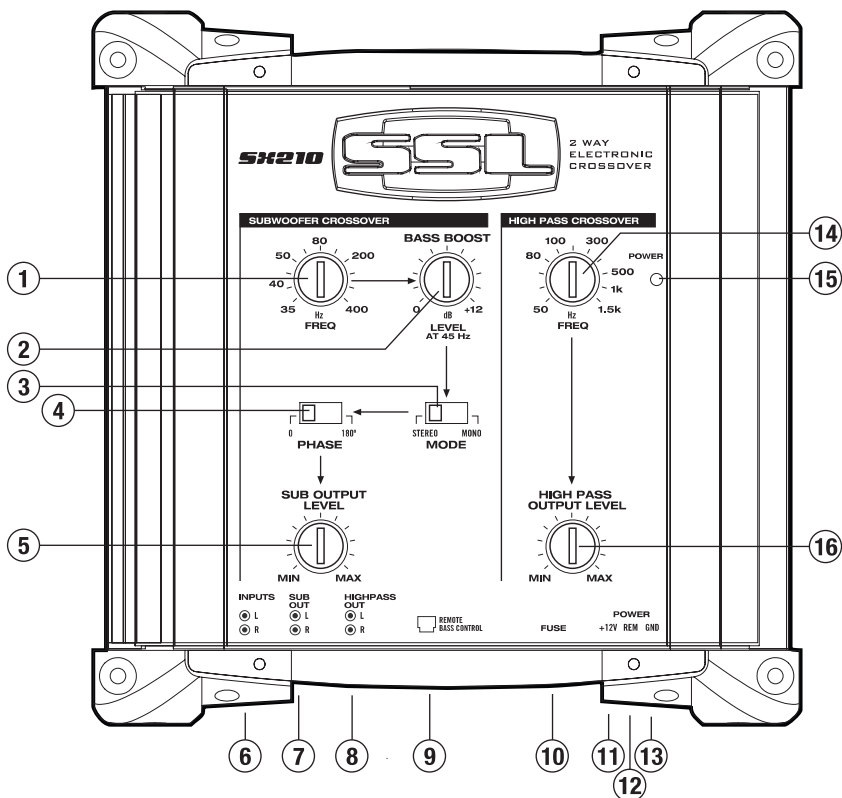
Getting started

Before powering up your system:

- 1) recheck all connections
- 2) set all level controls to the minimum positions
- 3) set all crossover controls and switches to the desired positions.

Power up your system and set the volume control on your head unit to a moderate level (typically this is a level where you can still have a normal conversation and be heard over the audio). You may need to further fine tune the system to suit your taste.

Controls and features



- 1 SUBWOOFER CROSSOVER FREQUENCY CONTROL**
Use this to select the frequency range sent to the subwoofer outputs. The selected frequency is the *highest* frequency which will be reproduced by the subwoofer(s).

- 2 BASS BOOST CONTROL**
This control allows you to increase the level of the bass up to +12dB, centered at 45Hz.

- 3 SUB STEREO/MONO SELECTOR**
For systems where you need stereo subwoofer outputs, choose STEREO. All others choose MONO.

- 4 PHASE SELECTOR**
Select the phase of the subwoofer output channel(s) for best time alignment and imaging.

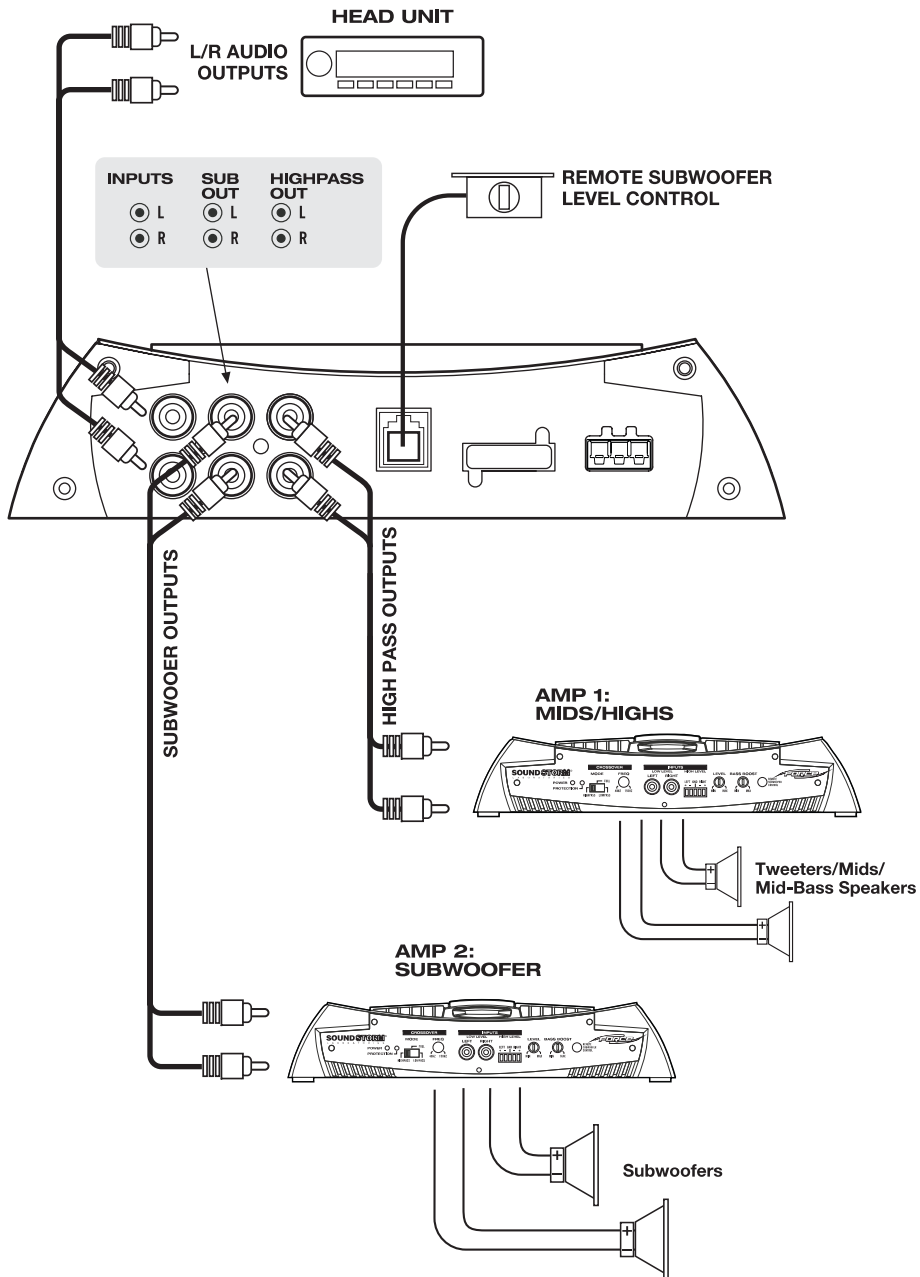
- 5 SUBWOOFER OUTPUT LEVEL**
Use to independently increase or decrease output gain.

- 6 LEFT and RIGHT AUDIO INPUTS**
7 LEFT and RIGHT SUB OUTPUTS
8 LEFT and RIGHT HIGHPASS OUTPUTS
9 REMOTE SUBWOOFER LEVEL CONTROL JACK
10 FUSE
Power Connections:
11 +12V
12 REMOTE
13 GROUND
14 FRONT HIGH PASS CROSSOVER FREQUENCY CONTROL
Sets the crossover frequency for the front (high pass) crossover.

- 15 POWER INDICATOR**
16 HIGH PASS OUTPUT LEVEL
Use to independently increase or decrease output gain for this channel.

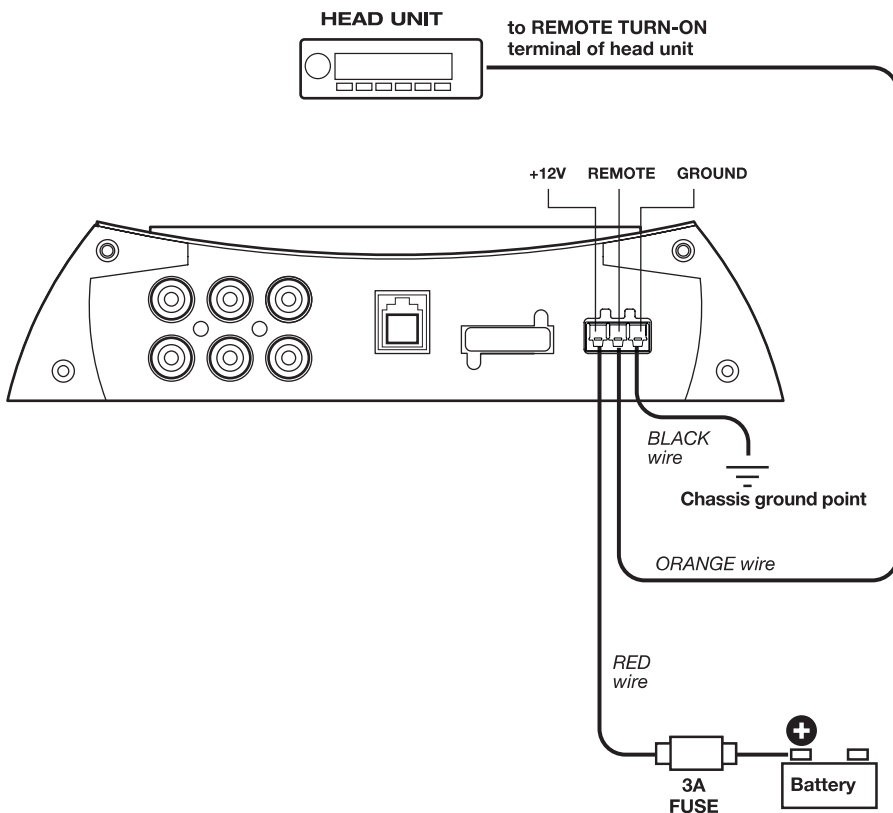
Audio connections

Review the diagram below and connect the unit as shown.



Power connections

Please note that this crossover contains an internal ON/OFF switch, which is activated when the head unit is turned on. For this reason, in order to use this crossover, your head unit must have a remote-turn on lead.



Troubleshooting

If you experience operation or performance problems with this product, compare your installation with the electrical wiring diagram on the previous page. If problems persist, read the following troubleshooting tips which may help eliminate the problems.

SYMPTOM	CAUSE	REMEDY
Signal processor does not turn on.	Power connections are incorrect or faulty.	<i>Check that power connections are properly made and all fuses are in functioning condition.</i> <i>Check that there is +12V present on the +12V terminal.</i>
Sound level is very low.	Cables are loose and/or incorrectly connected.	<i>Check that all audio connections are properly made and securely connected.</i>
	Cables are faulty.	<i>Check all cables. If necessary, repair or replace head unit.</i>
Background noise is too high.	Cables are loose and/or incorrectly connected.	<i>Check that all audio connections are properly made and securely connected. It is especially important to check the condition of the GROUND connection.</i>
	Cables are faulty.	<i>Check all cables. If necessary, repair or replace head unit.</i>



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Subwoofer crossover frequency	35-400Hz
High pass crossover frequency	50Hz - 1.5kHz
Crossover slope	12dB per octave
Subwoofer bass boost	0 to +12dB (at 45Hz)
Signal-to-noise Ratio	110dB
THD	less than 0.01 %
Channel separation	80dB
Power supply	10-16V negative ground
Output voltage	8V max
Input impedance	20k Ohms
Output impedance	100 Ohms
Output gain	1:2 (+6dB)
Dimensions (W x D x H)	7.25" x 7.38" x 1.63"

All specifications subject to change without notice.