
SVX2

2-Way

Staggered Frequency
Electronic Crossover

OWNER'S MANUAL

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

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2-Way Staggered Frequency

Electronic Crossover

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Thank you for purchasing the Soundstream **SVX2**. You now own one of the finest automotive electronic crossovers made, a precision component with audiophile performance.

For maximum performance, we suggest you take a few moments to read through this manual, to better acquaint yourself with the design features and capabilities of your new **SVX2**.



This Soundstream product is the result of American craftsmanship and the highest quality control standards. You can expect the **SVX2** to deliver many years of listening pleasure. To further help protect your investment and to aid us with service questions, please fill in and retain the following requested information:

Model Number: _____

Serial Number: _____

Dealer's Name: _____

Date of Purchase: _____

Date of Installation: _____

DESIGN FEATURES

We've designed the SVX2 to be a flexible component for planning and building your ideal car audio system. This two-channel electronic crossover is equipped with both front and rear stereo inputs. With this design, you can use the **fader control** (on the head unit) to achieve a desired front/rear sound balance.

The SVX2 provides high pass and subwoofer (low pass) outputs. The individual level controls and continuously-variable filters give you a wide range of adjustment options. The high pass channel uses 12 **dB** per octave stereo filters, while the subwoofer channel has steep 24 **dB** per octave mono filter for tight bass, and an 18 **dB** per octave filter to suppress harmful subsonic signals.

We use only premium parts to build each SVX2, including **double-sided** masked glass epoxy circuit boards, film capacitors, sealed immersible potentiometers, gold-plated RCA input/output connectors, and a rugged painted steel enclosure. And to insure stable, noise-free operation, we incorporate a switching power supply with LED indicator activated by system **power** via head unit remote connection.

CONNECTIONS AND CONTROLS

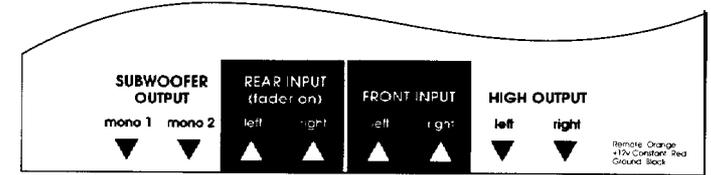
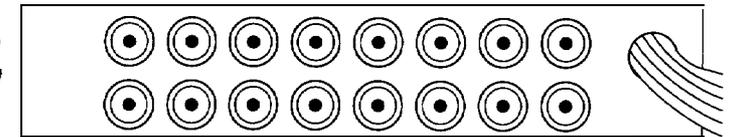


Figure 1. Rear panel of SVX2 contains Input/Output and Power connections.



Input Connections

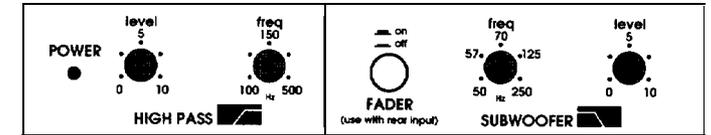
RCA jacks - Left/Right INPUT for Front and Rear inputs. Rear input for the Fader Subwoofer level is active when Fader switch (on front panel) is on.

Output Connections

High Pass: RCA jacks - Left/Right HIGH OUTPUT.

Subwoofer: RCA jacks - Mono 1 / Mono 2 SUBWOOFER OUTPUTS.

Figure 2. Front panel of SVX2 with power indicator, crossover controls for High Pass and Subwoofer Channels, and a Fader On/Off switch.



Crossover Controls

Power Indicator

Red LED lights when system power is on.

High Pass Channel

LEVEL: Continuously-variable output level control for adjusting the stereo level from the HIGH OUTPUT jacks.

FREQ: Continuously-variable, 100 to 500 Hz crossover frequency control for stereo high-pass audio from the HIGH OUTPUT jacks.

Subwoofer Channel

LEVEL: Continuously-variable output level control for adjusting the mono level from SUBWOOFER OUTPUTS 1 and 2.

FREQ: Continuously-variable, 50 to 250 Hz crossover frequency control for stereo low-pass audio from SUBWOOFER OUTPUTS 1 and 2.

Fader On/Off Switch

Subwoofer fader level is available when FADER is **ON**, and the rear outputs of your **head** unit are connected to the **SVX2's** Rear Inputs.

APPLICATIONS

Figure 3.
An example system using on SVX2 configured for front and rear operation.

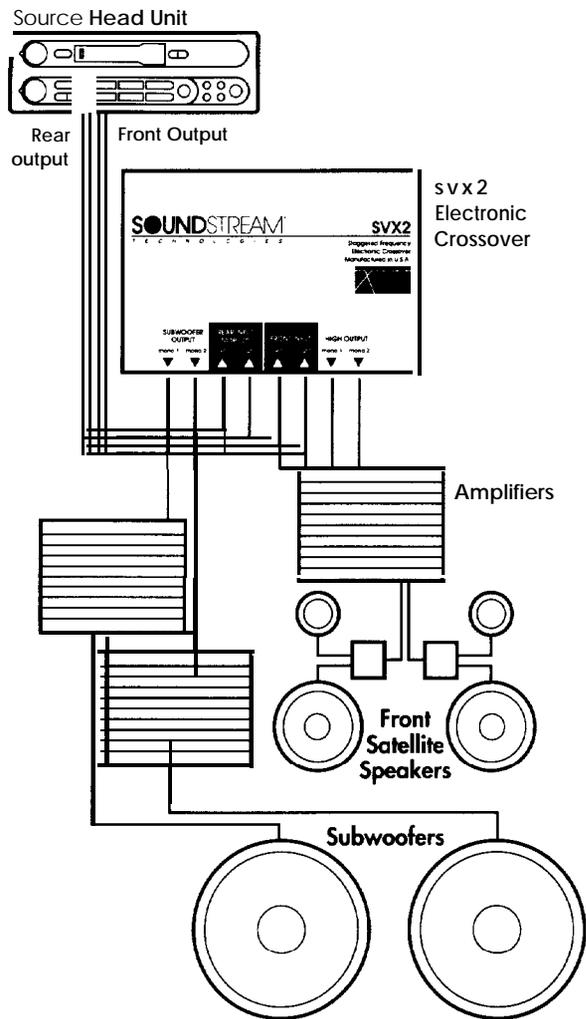


Figure 3 shows a typical system that uses satellite speakers for front sound staging and a pair of subwoofers for rear bass fill. Audio signals from the HIGH OUTPUTS drive a stereo front amplifier. Passive crossovers on the amplifier's outputs further divide the amplified signals to the satellites' mid-bass and tweeter speakers. The SUBWOOFER OUTPUTS drive a pair of mono amplifiers and subwoofer speakers.

INSTALLATION

Automotive sound system installations can be tricky, especially for first-timers. For this reason, we recommend using a professional installer, who has the tools and, more importantly, the experience to do the **job** right. If you decide to install the equipment yourself, we hope this manual will serve as a helpful guide.

Before attempting an installation, study the application shown in Figure 3. Use this proven design as a "blueprint" for your system installation, or as a starting point for creating your own custom system. With proper installation and **adjustment**, the SVX2 will reward you with reliable operation and optimum performance.

Recommended Signal Cables

The SVX2 uses gold-plated RCA type lacks for all audio connections. For best signal transfer, we recommend using Soundstream **DL•1** Audio Cable, Streamline Audio Cable, or an equivalent premium cable.

Wiring layout

Determine how your vehicle's wiring is laid out, and plan to run your new wiring along the same routes. Be sure to keep power wires away from all audio signal wires. (NOTE: Wires containing audio signals can cross a power wire, but not run alongside it.)

You can route the new wires under the carpeting, but make sure they do not interfere with the vehicle's normal operation. **Keep** all wires inside the vehicle, hidden from passengers. An exposed wire can inadvertently be pulled out, and may cause disconnection or shorting.

Location and Mounting

The SVX2 is compact in size and it generates virtually no heat. It can be located almost anywhere within the passenger compartment, trunk, or storage area. However, do not install the SVX2 in the engine compartment, or in any outside location exposed to dirt and moisture.

Use the **SVX2** as a template to mark drill holes. Before mounting the **SVX2** to your vehicle's chassis, inspect the site for any hidden brake or gas lines, wires, or cables.

For New Installations

If you are installing the SVX2 as part of new system, we suggest "bench testing" your entire system prior to mounting any components. By connecting the system to an external **+12 V** dc power source, **you** can test the components outside the vehicle to verify your installation scheme. Otherwise, try connecting the system components to your vehicle's electrical system before actually mounting each component.

In either case, connect the components exactly as intended in the final installation. Make all power connections last, test the system, and then disconnect all power until final installation is complete.

Connecting Audio Signal Cables and Power Wires

1. Make sure power to your audio system is off.
2. Connect audio signal cables according to your system plan.
3. Connect the black wire to good chassis ground (e.g., bare metal or bolt, not painted or coated).
4. Connect the orange wire to your head unit's remote turn-on connection.
5. Connect the red wire directly, through a 0.5 A in-line (fast-blow) fuse, to a constant +12 Vdc source, so that it is "hot," even when the ignition is off. Try connecting it to the battery cable itself, or tapping into a power lead on an amplifier.

SETTINGS AND ADJUSTMENTS

Level Settings

1. Set all SVX2 output level controls to their minimum positions (i.e., full counter-clockwise). Set all frequency controls to their respective 12 o'clock positions. Turn the system on and verify that the SVX2 Power indicator is on. For fader subwoofer control, set the FADER ON/OFF switch to the ON position, and set the head unit's fader control to mid-point position.
2. Set the head unit volume control to its mid-point position, play your favorite CD or tape, and turn up the **SVX2 HIGH PASS** Level control until the music reaches a comfortable listening level.
3. Next, turn-up the **SVX2 SUBWOOFER** Level control for a desired amount of bass, according to your taste in music.

Crossover Adjustment

The optimum crossover settings depend on two factors; the characteristics of your loudspeakers and the acoustics of your vehicle. Before making any **adjustments**, check the loudspeaker owner's manual for **any** specific crossover recommendations. Otherwise, follow these steps to adjust the **SVX2** crossover controls:

4. Adjust the HIGH PASS Frequency control while listening to music. Try **setting the control to either side of the initial 12 o'clock position and note any differences in the vocals**. With some experimentation, you'll find the setting that sounds best.
5. Adjust the SUBWOOFER Frequency control in the same way **described** in step 4. This time listen to the bass. You should find a setting that **will give you a solid sound with minimum "boom" from resonating frequencies**.

SERVICE Your SVX2 is protected by a limited warranty. Please read the enclosed warranty information carefully. Should any problem occur, contact your **local Soundstream dealer**.

SPECIFICATIONS	Total Harmonic Distortion	<0.05%, 20 Hz – 20 kHz
	Crossover Slopes	
	High Pass	12 dB per octave
	Subwoofer	24 dB per octave (mono)
	Crossover Frequencies	
	High Pass	Variable 100 Hz – 500 Hz
	Subwoofer (tow Pass)	Variable 50 Hz – 250 Hz
	Signal-to-Noise Ratio	>100 dB
	Gain	+3 dB
	Input Impedance	10 kOhms
	Output Impedance	5 kOhms
	Maximum Input Level	+6 dB, (2 V ac rms)
	Maximum Output Level	+9 dB, (2.6 V ac rms)
	Maximum Current Draw	15 mA
	Dimensions (WxDxH)	6-5/16" x 3-5/8" x 1"