

PASS



The “SR-2” (second Son Of Rushmore) loudspeaker is Pass Laboratories third entry into the often-confusing world of loudspeakers, a world fraught with claims of new technology and brilliant technological breakthroughs. Pass Laboratories claims no inclusion of special technology in the SR-2, only Nelson Pass’s meticulous attention to detail, a strong commitment to using the finest available parts and the love of experiencing the finest in recorded music in your own environment.

The first Pass Labs loudspeaker was “Rushmore” a no compromise system built around what we sincerely believed were the finest, high efficiency drivers available anywhere in the world. Those drivers were mated to four purpose built class A amplifiers, electronic crossovers and level controls into a self contained, all encompassing package.

Rushmore was an uncompromising product that relied on us, the maker, having complete control over all aspects of the listening chain with the exception of the source and material.

The Rushmore aimed for high dynamic contrast and control with very low distortion. This was achieved with the finest quality “strong motor” drivers intimately coupled to single-ended Class A amplifiers. The result was a stunning display of clarity and dynamics.

Realizing that many customers already have favorite electronics or appreciate the opportunity to choose and substitute electronics and cables as their preferences change. Pass Laboratories set out to design a new family of passive speakers that would accommodate a wide variety of customer owned electronics with as little

compromise of the Rushmore's acoustic characteristics as possible.

Like Rushmore and the SR-1 the Pass Laboratories SR-2 started with premiere examples of the loudspeaker driver makers art; the highly regarded Nextel series of drivers from Seas of Norway. Each SR-2 loudspeaker system contains one each of the following SEAS loudspeaker elements;

29 mm soft dome "HEXADYM" tm magnet tweeter

18 cm midrange driver

26 cm long excursion woofer

All of these Seas drivers have very long excursion diaphragms of carefully engineered paper and textile, low mass, under-hung voice coils and substantial copper faraday rings in the motor assembly. These advanced and costly design features in the Nextel drivers assure very low, non-linear distortion and excellent transient response.

The crossover elements are carefully selected premium domestic units, chosen both for their sonic characteristics and technical merit.

Each loudspeaker element and crossover in this single piece 3 way system is hand wired, inspected and tested in the Foresthill California factory of Pass Laboratories, assuring our meticulous personal attention to quality control.

We at Pass Laboratories want you the listener to enjoy this hobby in all its aspects. If you want to do nothing but listen to the music

then we say sit back and enjoy the “SR-2” Loudspeaker for what it does. If you want to enjoy the equipment we say sit back and enjoy the “SR-2” for all the things it lets you do.

Unpacking

Your SR-2 system comes double boxed with each cabinet in it's own pack. Within the double box, each speaker sits in rigid foam top and bottom trays that facilitate unpacking by a single person. We do not suggest that you attempt to separate inner and outer boxes.

Starting with the two large boxes, arrows on the box pointing up: Carefully cut the tape securing the flaps on the outer box. Open outer box and repeat for the inner box. Carefully open both of the boxes exposing the upper and lower foam trays containing the speakers.

At this point you should be viewing speakers in their normal upright position. They may be unpacked inverted, but are more stable if upright at this point.

Grasp the bottom foam tray and slide the tray, with speaker out of the double box. Remove the top tray and cloth sock, exercising caution so as to not damage the speakers grill covers in this process.

Place top tray next to SR-2 cabinet. Lay speaker on its side, balancing the cabinet squarely upon the top tray, cushioned and protected against scuffing by the cloth sock. With the speaker on it's side, level and balanced upon the top tray remove the bottom foam tray.

Once the bottom tray is removed, place the SR-2 speaker cabinet upright in the intended location. Place all packing into the now empty boxes and save for later use.

The SR-2 speaker cabinets each have bi-wire input connectors and it is strongly suggested that the customer bi-wire or bi-amp the speakers with wire of their choice.

Speaker wire is a very personal preference; please discuss cable options with your dealer if you do not already own cables that you favor. Pass Laboratories has included a set of jumper cables to allow temporary operation of the speakers with a single run of speaker cable; we strongly suggest dual runs of cable.

During extended listening sessions with the SR-2 product, most listeners sonically favor bi-wiring or bi-amping. For those so inclined you are also free to actively bi-amp with an electronic crossover. Active bi-amping through an electronic crossover such as the Pass Laboratories XVR1 allows ample freedom to select separate amplifiers of disparate gain for woofer and mid-range / tweeter. If you intend to use the electronic crossover option, please contact the factory for suggested crossover settings.

If you are using the preferred method of bi-wiring with two pairs of speaker cables from the power amplifier, then you must remove the supplied jumper wire. Failure to remove the jumper wire when bi-wiring or bi-amping places your amplifiers at risk.

Please keep in mind that the speaker cabinets are polarity sensitive. The positive speaker terminals on both pairs of speakers

need to attach to the positive terminals of the power-amplifier. The negative speaker terminals on both pairs of speakers need to attach to the negative terminals of the amplifier. Maintaining proper signal polarity is critical with all bi-wired speakers. Failure to maintain consistent polarity between the speakers and amplifier will be cause all manner of ills from collapsed and diffuse soundstage to greatly marginalized frequency response. If bi-amping with a combination of inverting and non inverting power amplifiers then take care to wire speakers in correct acoustic rather than correct electrical polarity. (**NOTE:** Pass Laboratories amplifiers historically are all non-inverting designs.)

Position and adjustment

It is difficult to provide absolute instructions for speaker placement; but we can give suggestion as to good starting points. Optimal results with the SR-2 as with most speakers are frequently achieved with subtle changes of physical location.

Rule of the first however is that the room in which you listen is perhaps the most significant of all audio components in the reproduction chain. Speakers can be made to work satisfactorily in poor sounding rooms, but it is much easier to achieve success in an acoustically correct room.

The ideal room is neither overly reflective nor overly absorptive. In a good sounding room, the absorptive elements tend to be at reflection points of the sidewalls, floor, ceiling and space behind the speaker. High ceilings or at least absorptive ceilings lend themselves to more natural sounding spaces. Reflective floors, while not ideal are less disruptive typically than highly reflective ceilings.

Diffusion generally is a good thing and excellent listening rooms typically have diffusion in abundance. Great sounding rooms are either large enough or absorptive enough to discourage strong standing waves in the listening area. Good sounding rooms that present a proper spatial image tend to be very symmetrical in layout, left to right.

Under these idyllic room conditions speaker placement is frequently a simple task. In an idyllic world the speakers would be well out in the room, typically about $1/3$ the distance of the rooms front to back dimension. The listener would be at mid point in the room or slightly to the rear of mid-point. The listener and the speakers would form an equilateral triangle, such that the distance speaker to speaker would be identical to the distance from either speaker to listener. The distance from speaker to sidewall would be unequal to the distance from the speaker to the back wall. To solidify the acoustic image placement in stereo or multi-channel recordings at the listening position the speakers will typically be toed in slightly toward the listening position, rather than square with the rear and sidewalls. The tweeter height of the speaker will be either at the same height as the listener's ear or in some way angled as to achieve an equivalent result. The SR-2 cabinets have adjustable feet, front and rear to optimize apparent driver height.

Lucky are the very few listeners who have well placed equipment in a well-engineered dedicated listening space either by design or happenstance. For the rest of us we have the Pass Laboratories SR-2. The Pass Laboratories SR-2 Loudspeaker was built to address less than perfect rooms and less than perfect speaker placement.

Of primary concern was a speaker that would be spectrally balanced throughout the room rather than only in a very narrow and defined “sweet spot”. The SR-2 was specifically built to those parameters.

Once the speaker position and cabinet tilt is optimized for apparent tweeter height the listener will need to adjust the level controls for optimal results. In a symmetrical room, the adjustments for left and right cabinet would be identical, asymmetrical rooms may require disparate settings of level controls or left and right speakers. Optimal level settings will be arrived at only by careful listening to a variety of source material while making small adjustments. Avoid setting that enhance only one select recording

On the rear of the SR-2 cabinets are 2 level controls. One level control on the woofer and one level control on the tweeter. All controls are 3 position switches that select fixed values. Mid position is considered “Normal”, UP (clockwise) increases the level of the drivers associated with a control. DOWN (counter-clockwise) decreases the level of the drivers associated with a control. Conditions indicated clearly at each switch by + /- silkscreen logo.

The level control on the woofer controls the lower bass and mid-bass level in the room. This control should be adjusted to optimize bass in room while minimizing undesirable bloom and boom of low frequencies.

The upper of the two level switches, selects one of three tweeter levels. Mid position typically for neutral rooms, up or clockwise for

rooms which are otherwise lacking in high frequency and down or counter-clockwise for rooms which tend to sound too bright.

If the listening room allows the listener to be directly on axis with the drivers and the room is neutral in character then the most likely setting of this control will be either the mid position or perhaps the clockwise or lower position. Rooms that require the listener to sit off axis to the speakers and rooms that have a surfeit of absorptive surfaces frequently require this control be in the up or counterclockwise position. Rooms that sound bright and those with a multitude of hard reflective surfaces typically require this control be set in the down or clockwise position.

The suggested settings are just that... and nothing more. There is no substitute for listening and personal judgment. We encourage users of this product to experiment with level settings and fine movements of speaker position until the most accurate or pleasant combination of spectral balance and soundstage are achieved.

Specifications

Passive 3-way design, bi-amp enabled

Impedance: 6 ohms

Sensitivity: 86 dB / watt / meter

Floor space required: 16-1/2 inches wide x 24 inches deep

Overall height: 43 inches

Shipping weight 165 lbs each

And ETC.

We thank you for your confidence, and hope that you enjoy it for many years.

If you have any questions or comments, please don't hesitate to contact us.

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